

SOLICITATION, OFFER AND AWARD

Page 1 of 69 Pages

1. This contract is a rated order under DPAS(15 CFR 350) RATING:

2. CONTRACT NO.	3. SOLICITATION NO. DTRS57-98-R-00001	4. TYPE OF SOLICITATION [] SEALED BID (IFB) [X] NEGOTIATED (RFP)
5. DATE ISSUED March 24, 1998	6. REQUISITION/PURCHASE REQ. NO. 76-3117	
7. ISSUED BY CODE DTS-853 DOT/RSPA/VOLPE NATIONAL TRANSPORTATION SYS.CENTER,DTS-852 55 BROADWAY, KENDALL SQUARE CAMBRIDGE, MA 02142	8. ADDRESS OFFER TO (If other than Item 7)	

NOTE: In sealed bid solicitations, "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 5 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Bldg 4, RM 298, until 2:00 P.M. local time on April 29, 1998. CAUTION-LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-10. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL: A. NAME: Guy H. Hillman
B. TELEPHONE NO.: (617)494-3401 (No Collect Calls)

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EXCEPTION TO STANDARD FORM 33

STANDARD FORM 33(REV-4-85)
FAR(48 CFR) 53.214(C)

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)

10 Calendar days	20 Calendar days	30 Calendar days	___ Calendar days
___%	___%	___%	___%

AMENDMENT NO	DATE	AMENDMENT NO	DATE
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(Type or Print)

17. SIGNATURE: _____ 18. OFFER DATE: _____

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION
[] 10 U.S.C. 2304(c)() [] 41 U.S.C. 253(c)()

24. ADMINISTERED BY CODE (If other than Item 7)	25. PAYMENT WILL BE MADE BY CODE DOT/RSPA/VOLPE NATIONAL TRANSPORTATION SYS.CENTER,DTS-823 55 BROADWAY, KENDALL SQUARE CAMBRIDGE, MA 02142
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IMPORTANT - Award will be made on this Form or on Standard Form 26,
or by other authorized official written notice.

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SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 TOTAL ESTIMATED COST AND FIXED FEE--TERM

Provide the necessary personnel, facilities, services, equipment and materials to perform those activities which are applicable to and called for specifically in response to Task Orders (TO's) issued as specified under Section C - Statement of Work. This includes reports and other products, all as specified, in Task Orders.

Total Estimated Cost	\$	_____
Fixed Fee	\$	_____
Total CPFF	\$	_____

B.2 CONTRACT LIMITATIONS

Number of Contract Awards: One contract will be awarded under this procurement.

Maximum Contract Value: The value of all Task Orders (TOs) placed under this contract shall not exceed 33,000 professional labor hours.

CONTRACT TYPE/CONTRACT MAXIMUM.

Minimum Guarantee: The guaranteed minimum is the amount allocated to the first TO.

H.6 CONTRACTOR AGREEMENT--TASK ORDERS--
CONTRACT/ORDER MINIMUM/MAXIMUM.

B.3 ALLOTTED AMOUNT

Section H .9 specifies the amount allotted to this incrementally funded contract, and the work and period of performance covered by the amount allotted.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 STATEMENT OF WORK/SPECIFICATIONS

The Contractor shall furnish the necessary personnel, material, services, and facilities (except as otherwise specified), required to comply with the Statement of Work/Specifications included in Attachment(s) J-1.

SECTION D - PACKAGING AND MARKING

D.1 MARKING (NOV 1987)

All information submitted to the Contracting Officer or the Contracting Officer's Technical Representative shall clearly indicate the contract number of the contract for which the information is being submitted.

SECTION E - INSPECTION AND ACCEPTANCE

E.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es)

[HTTP//WWW.dot.gov.ost/m60/tamtar](http://WWW.dot.gov.ost/m60/tamtar)
<http://farsitehill.af.mil/vfar1.htm>.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

NUMBER	TITLE	DATE
52.246-8	INSPECTION OF RESEARCH AND DEVELOPMENT - COST-REIMBURSEMENT	APR 1984

E.2 POINT(S) OF DELIVERY AND INSPECTION/ACCEPTANCE

The points of delivery set forth in Section F are hereby designated as the places for final inspection and acceptance.

SECTION F - DELIVERIES OR PERFORMANCE

F.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es)

HTTP://WWW.dot.gov.ost/m60/tamtar
http://farsitehill.af.mil/vfar1.htm.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

NUMBER	TITLE	DATE
52.242-15	STOP-WORK ORDER Alternate I (APR 1984)	AUG 1989

F.2 MONTHLY PROGRESS REPORTS

Monthly Progress Reports are required and shall be prepared and submitted in accordance with the "Contractor Report Exhibit": dated June 1, 1977, attached hereto and made a part hereof, except as noted below:

A Monthly Progress report is required and shall be prepared in 6 copies. As a minimum, the report will cover the following items:

- (1) The work performed during the previous month.
- (2) Significant findings, problems, delays, inclusions, events, trends, etc. of the reporting period which result from or affect the performance of the contract.
- (3) Detailed technical description of the work planned for the next reporting period.
- (4) Specific action required by the Government to assist in the resolution of a problem or to effect the timely progression of the contract.
- (5) An up-to-date schedule of the work performed and work to be performed on the contract. Two charts shall be presented; one reflecting planned expenditures of manhours for the project together with the actual expenditures of manhours; the other reflecting planned project accomplishments versus actual accomplishments in terms of time.

F.2 (Continued)

- (6) The funds committed during the reporting period.
- (7) A comparison of the actual and planned accumulated costs throughout the reporting period.
- (8) The submission of these reports does not relieve the contractor of its responsibility under the Limitation of Cost or Limitation of Funds clause, as set forth in section I of the contract.

F.3 MONTHLY COST REPORTS

Monthly Cost Reports in 6 copies will be submitted by the Contractor setting forth monthly cumulative (1) direct labor hours by categories, and (2) elements of cost by direct labor dollars, overhead, other direct costs, etc., which have been incurred and/or committed. In these reports, the Contractor shall also make its current assessment of completing the remaining work within the time remaining. The submission of these reports does not relieve the contractor of its responsibility under the limitation of costs or funds clause, as applicable, in Section I of this contract.

F.4 TECHNICAL REPORTS

Each technical task directive will be culminated by one of two types of reports: Letter Type or Technical. The Letter Type will be used primarily for smaller tasks such as data verification analyses, field support visits, task planning documents, literature searches, study plans, conference planning documents, and schedules. The Technical Report will be used for major tasks and may include earlier Letter Type reports as subsections. The Technical Report will be in a form suitable for publication in accordance with the "Contractor Report Exhibit" dated June 1, 1977, attached to Section J and made a part of this contract.

The technical task directive will specify the type of report and the number of copies required. The reports submitted shall be subject to review and approval by the Volpe Center Contracting Officer's Technical Representative (COTR), and if necessary, will be modified and resubmitted.

F.5 MEETINGS AND ORAL PRESENTATIONS

The Contractor shall meet with the Volpe Center Contracting Officer's Technical Representative (COTR) at regular intervals at the Volpe Center to discuss the status of the work and make oral presentations. In addition, the Contractor shall meet with the Volpe Center COTR and other personnel engaged in the program at a location to be established by the COTR to discuss critical areas

F.5 (Continued)

revealed by the contractor's work.

Such additional meetings may be held at the Volpe Center, the contractor's plant, or elsewhere as the situation warrants, and shall be requested by technical task directives. The Contractor shall furnish the Volpe Center COTR with a minimum of two sets of hard copies of visual aid materials used in the regular status reviews, and six sets of hard copies of visual aid materials used in the special meetings, within 3 days of the review/meeting.

F.6 DELIVERY/PERFORMANCE

Delivery/performance under this contract, within the overall period of performance as set forth below and under the funds allotted hereto, will be based on the issuance by the Contracting Officer of Task Orders (TO's). No work hereunder shall be performed by the Contractor until in receipt of a specific TO. The TO will delineate, among other requirements, the time schedule for performance.

Period of Performance: Four (4) years from commencement date.

F.7 PLACE OF DELIVERY FOR DATA AND REPORTS

The place of delivery for technical data and technical reports called for hereunder shall be:

DOT/RSPA/Volpe National, DTS-76
Transportation Systems Center
55 Broadway, Kendall Square
Cambridge, MA 02142

One copy of the following shall be sent to the attention of the Administrative Contracting Officer, DTS-852: (1) Letters of Transmittal of products called for under the TO's; and (2) monthly progress and cost summary reports.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 1252.242-73 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (OCT 1994)

- (a) The Contracting Officer may designate Government personnel to act as the Contracting Officer's Technical Representative (COTR) to perform functions under the contract such as review and/or inspection and acceptance of supplies, services, including construction, and other functions of a technical nature. The Contracting Officer will provide a written notice of such designation to the Contractor within five working days after contract award or for construction, not less than five working days prior to giving the contractor the notice to proceed. The designation letter will set forth the authorities and limitations of the COTR under the contract.
- (b) The Contracting Officer cannot authorize the COTR or any other representative to sign documents (i.e., contracts, contract modifications, etc.) that require the signature of the Contracting Officer.

G.2 RESPONSIBILITY FOR CONTRACT ADMINISTRATION

Contracting Officer: The Contracting Officer (CO) has the overall responsibility for this contract. The CO alone, without delegation, is authorized to take actions on behalf of the Government to amend, modify or deviate from the contract terms, conditions, requirements, specifications, details and/or delivery schedules. However, the CO may delegate certain other responsibilities to his/her authorized representatives.

An Administrative Contracting Officer (ACO) may be designated by the Contracting Officer. The duties of an ACO include but are not limited to: analyze and make recommendations on Contractor's proposals, offers or quotations upon request of the Contracting Officer; and approve Contractor's invoices in accordance with the terms of the contract.

The Contracting Officer, Administrative Contracting Officer and Technical Representatives are located at:

DOT/RSPA/VOLPE NATIONAL
TRANSPORTATION SYSTEM CENTER, DTS-852
55 Broadway, Kendall Square
Cambridge, MA 02142

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 PAYMENT FOR OVERTIME PREMIUMS

In accordance with FAR 52.222.2, Payment for Overtime Premiums, the use of overtime is authorized if the overtime premium cost does not exceed \$0.00.

H.2 GPO PRINTING REQUIREMENT

All printing funded by this contract will be accomplished in conformance with Title 44, United States Code, regulations of Joint Committee on Printing, applicable provisions of appropriation acts, and applicable regulations issued by the Government Printing Office and the Department of Transportation.

H.3 GOVERNMENT'S RIGHT TO PERFORM WORK

The Government reserves the right to accomplish any work within the scope of this contract either by Government personnel or by another separate contract(s) at the discretion of the Contracting Officer. If the Government does not issue sufficient Task Orders for the total level-of-effort of hours, and within the period of performance set forth herein, the level-of-effort established for the work specified in the Task Orders issued shall constitute the entire "Term" contract, and the fixed fee shall be subject to an equitable adjustment downward.

H.4 ISSUANCE OF TASK ORDERS

- (a) Under this contract, as firm work requirements materialize, within the period of performance set forth herein, and within the funds allotted hereunder, the Contracting Officer will direct the Contractor to perform work as generally described in Section C. The Contracting Officer will issue such directions to the Contractor in the form of Task Orders (TOs). Prior to issuance of any TO, the Contracting Officer will discuss with the Contractor the work to be performed, the timing thereof, and will negotiate the estimated cost thereof. In the event that agreement cannot be reached on the estimated cost of any TO, the Contracting Officer may unilaterally determine the estimated cost of that TO. In such event, the Contractor may seek relief or remedies as set forth in the Disputes clause. Except as specifically provided herein, the Government makes no representation as to the number of Task Orders or the actual amount of work which will be assigned. The

H.4 (Continued)

Contractor shall not perform any work hereunder nor incur any cost hereunder, until it receives a specific Task Order signed by the Contracting Officer. Each Task Order will contain as a minimum, the following:

1. Sequential number.
 2. Statement of the problem.
 3. Scope of work effort.
 4. Reporting requirements.
 5. Time schedule of performance.
 6. Estimated level of effort to be expended.
 7. Estimated cost.
 8. Required signature.
 9. Delivery, inspection and final acceptance points.
- (b) Each Task Order will be culminated by one of two types of reports, letter type or technical. The letter type will be used primarily for the smaller tasks, whereas, the technical report will be used for the larger tasks and will be in form suitable for publication in accordance with the "Contractor Report Exhibit" dated June 1, 1977, attached hereto and made a part hereof. The TO will specify the type of report required.
- (c) This contract will involve a number of task directives, which will be of short duration where quick response is required, thereby necessitating frequent technical exchange meetings between the contractor and the Volpe Center.
- (d) The Contractor shall provide the necessary personnel, facilities, services, equipment, and materials to perform those activities which are applicable to and called for specifically under each Task Order.

H.5 CONTRACT TYPE/CONTRACT MAXIMUM

- (a) This is an indefinite-delivery/indefinite quantity (IDIQ) contract. This is a cost-plus-fixed-fee contract in the "term" form pursuant to Federal Acquisition Regulation 16.306(d)(2). For this contract the period of performance is (4)four years from date of award, and the level of effort consists of a total of 33,000 professional labor hours. The term "professional labor" consists of the labor categories as set forth below.

H.5 (Continued)

CATEGORY

Program Manager	3,000
Senior Engineers	18,000
Engineers	8,000
Junior Engineers	4,000

At the conclusion of this contract, the Contractor shall furnish a written certification to the Contracting Officer listing the aforementioned direct labor hours utilized hereunder. In the event that the Contractor does not utilize the number of hours set forth above, the fixed-fee shall be subject to an equitable adjustment downward.

- (b) The Contractor shall maintain a job order cost accounting system that will accumulate costs incurred for each Task Order separately. In submitting its vouchers/invoices for payment of costs incurred hereunder, the Contractor shall list labor hours and other cost elements for each Task Order, then summarize to a total billing amount.

H.6 CONTRACTOR AGREEMENT--TASK ORDER--CONTRACT/
ORDER MINIMUM/MAXIMUM

The Contractor agrees to accept any Task Order issued under and in accordance with the terms of this contract, provided, however, that if a period of one hundred and twenty (120) successive calendar days occur in which a Task Order has not been issued or in effect, the Contractor upon written notice to the Contracting Officer, may terminate its obligation to accept additional Orders, provided the Contracting Officer does not issue any further order within thirty (30) days after receipt of the Contractor's notification. If such occurs, the contractor shall not be entitled to any termination costs, and the level of effort established for the work specified in the total Task Orders issued shall constitute the entire "Term" contract. Contemporaneously with the Contracting Officer's execution of this contract, the Contracting Officer will issue the first Task Orders. In the event that the Contractor does not utilize the number of hours set forth in total Task Orders issued hereunder, the fixed-fee shall be subject to an equitable adjustment downward.

H.7 SALES TAX EXEMPTION (JUN 1997)

- (a) The Volpe National Transportation Systems Center, as part of the Department of Transportation, an agency of the United States, is an exempt purchaser. Accordingly, all purchases of personal property by this organization are exempt from state and local taxation.
- (b) The Contractor will be provided with Tax Exemption certificates for the purpose of obtaining an exemption from state sales tax for supplies purchased under this procurement (see each individual Task Order). Notwithstanding the terms of the Federal, State, and Local taxes clause, if the Tax Exempt Certificate is not honored by the state, the Contractor shall state separately on its invoices the amount of state sales tax, and the Government agrees to either pay the amount of the tax to the Contractor or, where the amount of the tax exceeds \$250.00, to provide evidence necessary to sustain the exemption.

H.8 VOUCHER REVIEW

The Government may at its sole discretion arrange for a contractor to review vouchers and supporting data submitted for payment under the provisions of this contract. The Contractor reviewing vouchers and supporting data will perform this function in accordance with contract provisions which prohibit disclosure of proprietary financial data or use of such data for any purpose other than to perform accounts payable services.

H.9 INCREMENTAL FUNDING ALTERNATE I (JUN 1997)

The amount available for payment for this incrementally funded contract/TO is * of which * is allotted for reimbursement of estimated costs and * is obligated for payment of fixed fee. The Limitations of Funds clause, FAR 52.232-22, applies to the amount allotted to cover the estimated costs only. The fixed-fee will be payable in accordance with Section H of the contract.

The amount available for payment, specified above, covers 0.
* Will be filled in at time of award.

H.10 TASK ORDERS

- (a) The issuance of Task Orders hereunder does not relieve the Contractor of its responsibilities under Clause 52.232-22, Limitation of Funds, and/or FAR 52.232-20, Limitation of Costs. The applicable clause, Limitation of Funds (LOF), for incrementally funded TOs and Limitation of Costs (LOC), for fully funded TOs apply to individual TOs as well as to the contract as a whole.
- (b) Costs incurred under a TO shall relate only to the performance of the work called for in that TO. The level of

H.10 (Continued)

effort or the funds allocated to a TO may not be applied to work under any other TO issued under the contract without the written authorization of the Contracting Officer.

- (c) The term "TO" shall be substituted for "schedule" wherever the word appears in FAR clauses 52.232-20, Limitation of Cost, or 52.232-22, Limitation of Funds, as specified. In the event that fully funded work orders are issued under a TO, the provisions of the appropriate clauses shall apply to each work order as if it were a TO.

H.11 LEVEL OF EFFORT NOTIFICATION

- (a) The Contractor shall notify the Administrative Contracting Officer immediately in writing whenever it has reason to believe that:

- (1) The level of effort that the Contractor expects to incur under any Task Order (TO) in the next 30 days, when added to the level of effort previously expended in the performance of that TO, will exceed 90% of the level established for that TO; or
- (2) The level of effort required to perform a particular TO will be greater than the level of effort established for that TO.

(b) Either the "Limitation of Cost" or the "Limitation of Funds" clause, depending on whether the TO is fully funded or not, applies independently to each TO under this contract and nothing in this clause amends the rights or responsibilities of the parties hereto under either of these two clauses. In addition, the notifications required by this clause are separate and distinct from any specified in either the "Limitation of Cost" or "Limitation of Funds" clause.

H.12 FIXED FEE PAYMENTS

- (a) A pro rata portion of the fixed fee of this Contract, proportionate to the Task Order (TO) direct labor hours required and expended shall be payable at the expiration of the established period of performance of each TO, contingent upon the Contractor's written certification that the level of effort specified in each TO has been expended in performing the contract work, and the work has been accepted by the Government.
- (b) The pro rata amount to be paid shall be calculated as indicated in (1) and (2) below:
 - (1) Multiplication of the number of direct labor hours

H.12 (Continued)

required by the Government and expended in performance of the TO by an amount which equals the sum derived when the fixed fee for the contract is divided by the total direct labor hours required to be delivered under the contract.

- (2) Subtraction of 15% (retainage) of the amount resulting from the calculation in (1) above.
- (c) The fixed fee for each TO shall be billed on a separate invoice and shall include the certification specified in paragraph (a) above.

H.13 ADDITIONAL PAYMENT PROVISIONS

(a) Voucher Information

In addition to information required by clause 52.232-25 incorporated by reference in Section I, the contractor shall include in its voucher/invoice submittals the following information:

- (1) Consecutively number each voucher/invoice beginning with No. 1.
- (2) In submitting its vouchers/invoices for payment of costs incurred hereunder, the contractor shall list labor hours by categories as set forth in each TO, and other cost elements for each TO, then sum all cost elements to a total billing amount.

(b) Voucher Submission

- (1) The contractor shall submit an original and 5 copies of each voucher/invoice.
- (2) The contractor shall submit its first and final voucher cost vouchers to its cognizant Government Audit Agency. All other fixed-fee vouchers and cost vouchers are to be submitted to the payment office designated on page 1.
- (3) Cost vouchers may be submitted at the beginning of each calendar month for costs incurred during the preceding month. Cost vouchers are submitted once each month; however, small businesses may submit cost vouchers once every two weeks.

H.14 HANDLING OF DATA

- (a) The Contractor and any of its subcontractors in performance of this contract, may have need for access to and use of various types of data and information in the possession of the Government which the Government obtained under conditions which restrict the Government's right to use and disclose the data and information, or which may be of such a nature that its dissemination or use other than in the performance of this contract, would be adverse to the interests of the Government or other parties. Therefore, the Contractor and its subcontractors agree to abide by any restrictive use conditions on such data and not to:
 - (1) Knowingly disclose such data and information to others without written authorization from the Contracting Officer, unless the Government has made the data and information available to the public; and
 - (2) Use for any purpose other than the performance of this contract that data which bears a restrictive marking or legend.
- (b) In the event the work required to be performed under this contract requires access to proprietary data of other companies, the Contractor shall obtain agreements from such other companies for such use unless such data is provided or made available to the Contractor by the Government. Two copies of such company-to-company agreements shall be furnished promptly to the Contracting Officer for information only. These agreements shall prescribe the scope of authorized use or disclosure, and other terms and conditions to be agreed upon between the parties. It is agreed by the Contractor that any such data, whether obtained by the Contractor pursuant to the aforesaid agreement or from the Government shall be protected from unauthorized use or disclosure to any individual, corporation, or organization so long as it remains proprietary.
- (c) Through formal training in company policy and procedures, the Contractor agrees to make employees aware of the absolute necessity to maintain the confidentiality of data and information, as required above, and further aware of the sanctions which may be imposed for divulging either the proprietary data of other companies or data that is obtained from the Government to anyone except as authorized. The Contractor shall obtain from each employee engaged in any effort connected with this contract an agreement, in writing, which shall in substance provide that such employee will not, during his/her employment by the Contractor, or thereafter, disclose to others or use for his/her own benefit or the future benefit of any individual any trade secrets, confidential information, or proprietary/restricted data (to

H.14 (Continued)

include Government "For Officials Use Only") received in connection with the work under this contract. The Contractor shall furnish a sample form of this agreement to the Contracting Officer promptly after award.

- (d) The Contractor agrees to hold the Government harmless and indemnify the Government as to any cost/loss resulting from the unauthorized use of disclosure of third party data or software by the Contractor, its employees, subcontractors, or agents.
- (e) The Contractor agrees to include the substance of this provision in all subcontracts awarded under this contract. The Contracting Officer will consider case-by-case exceptions from this requirement for individual subcontracts in the event that (1) the contractor considers the application of the prohibitions of this provision to be inappropriate and unnecessary in the case of a particular subcontractor; (2) the subcontractor provides a written statement affirming absolute unwillingness to perform absent some relief from the substance of this prohibition; (3) use of an alternate subcontract source would reasonably detract from the quality of effort; and (4) the Contractor provides the Contracting Officer timely written advance notice of these and any other extenuating circumstances.
- (f) Except as the Contracting Officer specifically authorizes in writing, upon completion of all work under this contract the Contractor shall return all such data and information obtained from the Government, including all copies, modifications, adaptations, or combinations thereof, to the Contracting Officer. Data obtained from another company shall be disposed of in accordance with the Contractor's agreement with that company, or, if the agreement makes no provision for disposition, shall be returned to that company. The Contractor shall further certify in writing to the Contracting Officer that all copies, modifications, adaptations or combinations of such data or information which cannot reasonably be returned to the Contracting Officer (or to a company), have been deleted from the Contractor's (and any subcontractor's) records and destroyed.
- (g) These restrictions do not limit the Contractor's (or subcontractor's) right to use and disclose any data and information obtained from another source without restriction.
- (h) As used herein, the term "data" has the meaning set forth in Federal Acquisition Regulations, clause 52.227-14, "Rights in Data - General," and includes, but is not limited to, computer software, as also defined in Clause 52.227-14.

H. 15 YEAR 2000 COMPLIANCE (DEC 1997)

The contractor shall ensure that each hardware, software, and firmware product delivered under this contract shall be year 2000 compliant. This means being able to accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into and between the twentieth and twenty first centuries, and the years 1999 and 2000 and leap year calculations. Furthermore, the product, when used in combination with other Year 2000 compliant information technology, shall accurately process and exchange date/time data with it.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es)

[HTTP//WWW.dot.gov.ost/m60/tamtar](http://WWW.dot.gov.ost/m60/tamtar)
<http://farsitehill.af.mil/vfar1.htm>.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

NUMBER	TITLE	DATE
52.202-1	DEFINITIONS	OCT 1995
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	APR 1984
52.203-7	ANTI-KICKBACK PROCEDURES	JUL 1995
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	JUN 1997
52.204-4	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER	JUN 1996
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	JUL 1995
52.215-2	AUDIT AND RECORDS--NEGOTIATION	AUG 1996
52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT 1997
52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA	OCT 1997
52.215-12	SUBCONTRACTOR COST OR PRICING DATA	OCT 1997
52.215-14	INTEGRITY OF UNIT PRICES	OCT 1997
52.215-15	TERMINATION OF DEFINED BENEFIT PENSION PLANS	OCT 1997
52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS	OCT 1997
52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT 1997
52.216-7	ALLOWABLE COST AND PAYMENT	MAR 1997

I.1 (Continued)

NUMBER	TITLE	DATE
	If the contract is with an educational institution, the clause, 52.216-7, Allowable Cost and payment, will be modified by deleting from paragraph (a) the words "Subpart 31.2" and substituting for them "Subpart 31.3." If the contract is with a State or local government, the clause will be modified by deleting from paragraph (a) the words "Subpart 31.2" and substituting for them "Subpart 31.6." If the contract is with a nonprofit organization other than an educational institution, a State or local government, or a nonprofit organization exempted under OMB Circular No. A-122, the clause will be modified by deleting from paragraph (a) the words "Subpart 31.2" and substituting for them "Subpart 31.7."	
52.216-8	FIXED FEE	MAR 1997
52.216-22	INDEFINITE QUANTITY	OCT 1995
52.219-8	UTILIZATION OF SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS CONCERNS	JUN 1997
52.219-9	SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN	AUG 1996
52.222-2	PAYMENT FOR OVERTIME PREMIUMS	JUL 1990
52.222-3	CONVICT LABOR	AUG 1996
52.222-26	EQUAL OPPORTUNITY	APR 1984
52.222-28	EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS	APR 1984
52.222-36	AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS	APR 1984
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA	JAN 1988
52.223-2	CLEAN AIR AND WATER	APR 1984
52.223-6	DRUG-FREE WORKPLACE	JAN 1997
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	OCT 1996
52.225-11	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	OCT 1996
52.227-1	AUTHORIZATION AND CONSENT Alternate I (APR 1984)	JUL 1995
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	AUG 1996
52.227-12	PATENT RIGHTS - RETENTION BY THE CONTRACTOR (LONG FORM)	JAN 1997
52.227-14	RIGHTS IN DATA - GENERAL	JUN 1987
52.228-7	INSURANCE - LIABILITY TO THIRD PERSONS	MAR 1996
52.230-2	COST ACCOUNTING STANDARDS	APR 1996

I.1 (Continued)

NUMBER	TITLE	DATE
52.230-3	DISCLOSURE AND CONSISTENCY OF COST ACCOUNTING PRACTICES	APR 1996
52.230-5	COST ACCOUNTING STANDARDS-- EDUCATIONAL INSTITUTIONS	APR 1996
52.230-6	ADMINISTRATION OF COST ACCOUNTING STANDARDS	APR 1996
52.232-9	LIMITATION ON WITHHOLDING OF PAYMENTS	APR 1984
52.232-17	INTEREST	JUN 1996
52.232-20	LIMITATION OF COST	APR 1984
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT	JUN 1997
52.232-33	MANDATORY INFORMATION FOR ELECTRONIC FUNDS TRANSFER PAYMENT	AUG 1996
52.233-1	DISPUTES	OCT 1995
52.233-3	PROTEST AFTER AWARD Alternate I (JUN 1985)	AUG 1996
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	OCT 1995
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES - COST-REIMBURSEMENT Alternate V (APR 1984)	AUG 1987
52.244-2	SUBCONTRACTS (COST-REIMBURSEMENT AND LETTER CONTRACTS)	MAR 1996
52.244-5	COMPETITION IN SUBCONTRACTING	JAN 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS	OCT 1995
52.249-6	TERMINATION (COST-REIMBURSEMENT)	SEP 1996
52.249-14	EXCUSABLE DELAYS	APR 1984
52.251-1	GOVERNMENT SUPPLY SOURCES	APR 1984
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

II. TRANSPORTATION ACQUISITION REGULATION (48 CFR CHAPTER 12)
CLAUSES

NUMBER	TITLE	DATE
1252.242-71	CONTRACTOR TESTIMONY	OCT 1994
1252.242-72	DISSEMINATION OF CONTRACT INFORMATION	OCT 1994

I.2 52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF
FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

- (a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act),

I.2 (Continued)

as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

- (1) Cancel the solicitation, if the contract has not yet been awarded or issued; or
- (2) Rescind the contract with respect to which--
 - (i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27 (a) or (b) of the Act for the purpose of either--
 - (A) Exchanging the information covered by such subsections for anything of value; or
 - (B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or
 - (ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.
- (b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.
- (c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

I.3 52.204-1 APPROVAL OF CONTRACT (DEC 1989)

This contract is subject to the written approval of Branch Chief and shall not be binding until so approved.

I.4 52.216-18 ORDERING (OCT 1995)

- (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from award date through four (4) years.
- (b) All delivery orders or task orders are subject to the terms

I.4 (Continued)

and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

- (c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

I.5 52.216-19 ORDERING LIMITATIONS (OCT 1995)

There are no task order minimums or maximums associated with individual orders or series of orders. The contractor shall honor all orders except as provided in section H.6 CONTRACTOR AGREEMENT-TASK ORDERS--CONTRACT/ORDER MINIMUM/MAXIMUM.

I.6 52.222-35 AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (APR 1984) (DEVIATION)

(a) Definitions.

"Appropriate office of the State employment service system," as used in this clause, means the local office of the Federal-State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Commonwealth of Puerto Rico, and the Virgin Islands.

"Positions that will be filled from within the Contractor's organizations", as used in this clause, means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings that the Contractor proposes to fill from regularly established "recall" lists.

"Employment openings", as used in this clause, includes full-time employment, temporary employment of over 3 days, and part-time employment, but does not include (1) executive and top management positions, (2) positions that will be filled from within the Contractor's organization or under a customary and traditional employer-union hiring arrangement, or (3) openings in an educational institution that are restricted to students of that institution.

- (b) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against the individual because the individual is a special disabled or Vietnam Era veteran. The Contractor

I.6 (Continued)

agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled and Vietnam Era veterans without discrimination based upon their disability or veterans' status in all employment practices such as-

- (i) Employment;
 - (ii) Upgrading
 - (iii) Demotion or transfer;
 - (iv) Recruitment;
 - (v) Advertising;
 - (vi) Layoff or termination;
 - (vii) Rates of pay or other forms of compensation; and
 - (viii) Selection for training, including apprenticeship
- (2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended.
- (c) Listing openings. (1) The Contractor agrees to list all employment openings existing at contract award or occurring during contract performance, at the appropriate office of the State employment service system in the locality where the opening occurs. These openings including those occurring at any Contractor facility, including one not connected with performing this contract. An independent corporate affiliate is exempt from this requirement.
- (2) State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their openings with the appropriate office of the State employment service.
- (3) The listing of employment openings with the State employment service system is required at least concurrently with using any other recruitment source or effort and involves the obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive

I.6 (Continued)

orders or regulations concerning nondiscrimination in employment.

- (4) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State employment service system, in each State where it has establishments, of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State system, it need not advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract clause.
 - (5) Under the most compelling circumstances, an employment opening may not be suitable for listing, including situations when (i) the Government's needs cannot reasonably be supplied, (ii) listing would be contrary to national security, or (iii) the requirement of listing would not be in the Government's interest.
- (d) Applicability. (1) This clause does not apply to the listing of employment openings which occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, and the Virgin Islands.
- (2) The terms of paragraph (c) above of this clause do not apply to openings that the Contractor proposes to fill from within its own organization or under a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of its own organization or employer-union arrangement for that opening.
- (e) Postings. (1) The Contractor agrees to post employment notices stating (i) the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified special disabled veterans and veterans of the Vietnam era, and (ii) the rights of applicants and employees.
- (2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. They shall be in a form prescribed by the Director, Office of Federal Contract Compliance Programs, Department of Labor (Director), and provided by or through the Contracting Officer.
 - (3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding,

I.6 (Continued)

that the Contractor is bound by the terms of the Act, and is committed to take affirmative action to employ, and advance in employment, qualified special disabled and Vietnam Era veterans.

- (f) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.
- (g) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Director to enforce the terms, including action for noncompliance.

I.7 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

- (a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.
- (b) The use in this solicitation or contract of any Department of Transportation clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

J.1 LIST OF ATTACHMENTS

ATTACHMENT NO.	TITLE	NO OF PAGES
J-1	Statement of Work	4
J-2	Contractor Report Exhibit(June 1, 1977)	27
J-3	Client Authorization Letter and Past Performance Evaluation Form	6
J-4	Contract Pricing Summary	2
J-5	Hypothetical Task	1

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND
OTHER STATEMENTS OF OFFERORS

K.1 SIGNATURE

By execution and submission of this statement, the undersigned acknowledges that he/she has reviewed and, where appropriate, has fully and accurately completed each of the certifications and/or representations contained in Section K of this solicitation (K.1 through K.18 for the purpose(s) set forth therein, and that he/she has been authorized to do so on behalf of the offeror.

Signature

Typed Name, Title

Offeror

Date

K.2 52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS
TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

- (a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.
- (b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989--
 - (1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;
 - (2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a

K.2 (Continued)

Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

- (3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.
- (c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

K.3 52.204-3 TAXPAYER IDENTIFICATION (MAR 1994)

(a) Definitions.

"Common parent," as used in this solicitation provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Corporate status," as used in this solicitation provision, means a designation as to whether the offeror is a corporate entity, an unincorporated entity (e.g., sole proprietorship or partnership), or a corporation providing medical and health care services.

"Taxpayer Identification Number (TIN)," as used in this solicitation provision, means the number required by the IRS to be used by the offeror in reporting income tax and other returns.

- (b) All offerors are required to submit the information required in paragraphs (c) through (e) of this solicitation provision in order to comply with reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to the reporting requirements described in FAR 4.903, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.
- (c) Taxpayer Identification Number (TIN).

K.3 (Continued)

- ☐ TIN:_____.
- ☐ TIN has been applied for.
- ☐ TIN is not required because:
 - ☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;
 - ☐ Offeror is an agency or instrumentality of a foreign government;
 - ☐ Offeror is an agency or instrumentality of a Federal, state, or local government;
 - ☐ Other. State basis._____

(d) Corporate Status.

- ☐ Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;
- ☐ Other corporate entity;
- ☐ Not a corporate entity:
 - ☐ Sole proprietorship
 - ☐ Partnership
 - ☐ Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(e) Common Parent.

- ☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this clause.
- ☐ Name and TIN of common parent:
 - Name _____
 - TIN _____

K.4 52.204-5 Women-Owned Business (OCT 1995)

(a) Representation. The offeror represents that it _____ is, _____ is not a women-owned business concern.

(b) Definition. "Women-owned business concern," as used in this provision, means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women, and whose management and daily business operations are controlled by one or more women.

K.5 52.204-6 CONTRACTOR IDENTIFICATION NUMBER--DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (DEC 1996)

- (a) Contractor Identification Number, as used in this provision, means "Data Universal Numbering System (DUNS) number," which is a nine-digit number assigned by Dun and Bradstreet Information Services.
- (b) Contractor identification is essential for complying with statutory contract reporting requirements. Therefore, the offeror is requested to enter, in the block with its name and address on the Standard Form 33 or similar document, the annotation "DUNS" followed by the DUNS number which identifies the offeror's name and address exactly as stated in the offer.
- (c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:
- (1) Company name.
 - (2) Company address.
 - (3) Company telephone number.
 - (4) Line of business.
 - (5) Chief executive officer/key manager.
 - (6) Date the company was started.
 - (7) Number of people employed by the company.
 - (8) Company affiliation.
- (d) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at [http://www.dbisna.com/dbis/customer /custlist.htm](http://www.dbisna.com/dbis/customer/custlist.htm). If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@dbisma.com.

K.6 52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS
(MAR 1996)

(a) (1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the

K.6 (Continued)

Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

- (c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.
- (d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

K.7 52.215-4 TYPE OF BUSINESS ORGANIZATION. (OCT 1997)

The Offeror or respondent, by checking the applicable box, represents that -

- A. It operates as an individual, ☐ a partnership, ☐ - a nonprofit organization, ☐ a joint venture; or ☐ a corporation incorporated under the laws of the State of
- B. If the Offeror or respondent is a foreign entity, it operates as an individual, ☐ a partnership, ☐ a nonprofit organization, ☐ a joint venture, or ☐ a corporation, registered for business in (country). a

K.8 52.215-6 PLACE OF PERFORMANCE (OCT 1997)

- (a) The offeror or respondent, in the performance of any contract resulting from this solicitation, ☐ intends, ☐ does not intend [check applicable block] to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or request for information.
- (b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

K.8 (Continued)

Place of Performance (Street Address, City, State, County, Zip Code)	Name and Address of Owner and Operator of the Plant or Facility if Other than Offeror or Respondent
_____	_____
_____	_____
_____	_____

K.9 52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS
(DEC 1996)

- (a) (1) The standard industrial classification (SIC) code for this acquisition is 8731.
- (2) The small business size standard is 500 employees.
- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b) Representations. (1) The offeror represents and certifies as part of its offer that it [] is, [] is not a small business concern.
- (2) (Complete only if offeror represented itself as a small business concern in block (b)(1) of this section.) The offeror represents as part of its offer that it [] is, [] is not a small disadvantaged business concern.
- (3) (Complete only if offeror represented itself as a small business concern in block (b)(1) of this section.) The offeror represents as part of its offer that it [] is, [] is not a women-owned small business concern.
- (c) Definitions. Joint Venture, for purposes of a small disadvantaged business (SDB) set-aside or price evaluation preference (as prescribed at 13 CFR 124.321), is a concern that is owned and controlled by one or more socially and economically disadvantaged individuals entering into joint venture agreement with one or more business concerns and is considered to be affiliated for size purpose with such other concern(s). The combined annual receipts or employees of the concerns entering into the joint venture must meet the applicable size standard corresponding to the SIC code designated for the contract. The majority of the venture's earning must accrue directly to the socially and economically disadvantaged individuals in the SDB concern(s) in the joint venture. The percentage of the ownership involvement in a

K.9 (Continued)

joint venture by disadvantaged individuals must be at least 51 percent. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

"Small disadvantaged business concern", as used in this provision, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more individuals who are both socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR part 124.

"Women-owned small business concern", as used in this provision, means a small business concern--

- (1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
 - (2) Whose management and daily business operations are controlled by one or more women.
- (d) Notice. (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.
- (2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small or small disadvantaged business concern in order to obtain a contract to be awarded under the preference programs established pursuant to sections 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program

K.9 (Continued)

eligibility, shall--

- (i) Be punished by imposition of a fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

K.10 52.222-21 CERTIFICATION OF NONSEGREGATED FACILITIES
(APR 1984)

- (a) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.
- (b) By the submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.
- (c) The offeror further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will--
 - (1) Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;
 - (2) Retain the certifications in the files; and
 - (3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR
CERTIFICATIONS OF NONSEGREGATED FACILITIES

K.10 (Continued)

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract under which the subcontractor will be subject to the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

K.11 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS
(APR 1984)

The offeror represents that--

- (a) It [] has, [] has not participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114;
- (b) It [] has, [] has not filed all required compliance reports; and
- (c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

K.12 52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that (a) it [] has developed and has on file, [] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) it [] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

K.13 52.223-1 CLEAN AIR AND WATER CERTIFICATION (APR 1984)

The Offeror certifies that--

- (a) Any facility to be used in the performance of this proposed contract is [], is not [] listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
- (b) The Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the EPA, indicating that any

K.13 (Continued)

facility that the Offeror proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and

- (c) The Offeror will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

K.14 52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 1996)

- (a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

- (b) By signing this offer, the offeror certifies that--

- (1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or--

- (2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

☐ (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

☐ (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

☐ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

K.14 (Continued)

- [] (iv) The facility does not fall within Standard Industrial Classification Code (SIC) designations 20 through 39 as set forth in Section 19.102 of the Federal Acquisition Regulations; or
- [] (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

K.15 52.226-2 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (MAY 1997)

- (a) Definitions. As used in this provision--Historically Black College or University means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

Minority Institution means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which, for the purpose of this provision, includes a Hispanic-serving institution of higher education as defined in Section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)).

- (b) Representation. The offeror represents that it--

[] is [] is not a Historically Black College or University;
[] is [] is not a Minority Institution.

K.16 52.227-15 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (JUN 1987)

- (a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data--General clause at 52.227-14 that is to be included in this contract. Under the

K.16 (Continued)

latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

- (b) As an aid in determining the Government's need to include any of the aforementioned Alternates in the clause at 52.227-14, Rights in Data--General, the offeror's response to this solicitation shall, to the extent feasible, complete the representation in paragraph (b) of this provision to either state that none of the data qualify as limited rights data or restricted computer software, or identify which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of such data should a contract be awarded to the offeror.

REPRESENTATION CONCERNING DATA RIGHTS

Offeror has reviewed the requirements for the delivery of data or software and states (offeror check appropriate block)--

- ☐ None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.
- ☐ Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

K.16 (Continued)

NOTE: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights In Data-- General."

K.17 52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (APR 1996)

NOTE: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT--COST ACCOUNTING PRACTICES AND CERTIFICATION

- (a) Any contract in excess of \$500,000 resulting from this solicitation, except contracts in which the price negotiated is based on (1) established catalog or market prices of commercial items sold in substantial quantities to the general public, or (2) prices set by law or regulation, will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.
- (b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

K.17 (Continued)

(c) Check the appropriate box below:

/___/ (1) Certificate of Concurrent Submission of Disclosure Statement.

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) Original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) One copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed:

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

/___/ (2) Certificate of Previously Submitted Disclosure Statement.

The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed:

K.17 (Continued)

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

/___/ (3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling more than \$25 million (of which at least one award exceeded \$1 million) in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

/___/ (4) Certificate of Interim Exemption.

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraphs (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$25 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS--ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

K.17 (Continued)

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

☐ The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$25 million in awards of CAS-covered prime contracts and subcontracts, or the offeror did not receive a single CAS-covered award exceeding \$1 million. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$25 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$25 million or more.

III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

☐ YES

☐ NO

K.18 CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in section 15.801 of the Federal Acquisition Regulation (FAR) and required under subsection 15.804-2) submitted, either actually or by specific identification in writing, to the contracting officer or the contracting officer's representative in support of _____* are accurate, complete, and current as of _____. This certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between the offeror

K.18 (Continued)

and the Government that are part of the proposal.

Firm: _____

Name: _____

Title: _____

Signature: _____

***Date of execution: _____

* Identify the proposal, quotation, request for price adjustment, or other submission involved, giving the appropriate identifying number (e.g., RFP No.).

** Insert the day, month and year when price negotiations were concluded and price agreement was reached.

*** Insert the day, month, and year of signing, which should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.

SECTION L - INSTRUCTIONS, CONDITIONS, AND
NOTICES TO OFFERORS

L.1 52.252-1 SOLICITATION PROVISIONS INCORPORATED
BY REFERENCE (JUN 1988)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the contracting officer will make their full text available. . Also, the full text of a clause may be accessed electronically at this/these address(es)

HTTP://WWW.dot.gov.ost/m60/tamtar
http://farsitehill.af.mil/vfar1.htm.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)
PROVISIONS

NUMBER	TITLE	DATE
52.214-35	SUBMISSION OF OFFERS IN US CURRENCY	APR 1991
52.215-16	FACILITIES CAPITAL COST OF MONEY	OCT 1997
52.216-27	SINGLE OR MULTIPLE AWARDS	OCT 1995
52.222-24	PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE REVIEW	APR 1984

L.2 DISCLOSURE OF CONFLICTS OF INTEREST (OCT 1994)

It is the Department of Transportation's (DOT) policy to award contracts to only those offerors whose objectivity is not impaired because of any related past, present, or planned interest, financial or otherwise, in organizations regulated by DOT or in organizations whose interests may be substantially affected by Departmental activities. Based on this policy:

- (a) The offeror shall provide a statement in its proposal which describes in a concise manner all past, present or planned organizational, financial, contractual or other interest(s) with an organization regulated by DOT, or with an organization whose interests may be substantially affected by Departmental activities, and which is related to the work under this solicitation. The interest(s) described shall include those of the proposer, its affiliates, proposed consultants, proposed subcontractors and key personnel of any of the entities. Past interest shall be limited to within one year of the date of the offeror's technical proposal. Key personnel shall include any person owning more than 20% interest in the offeror, and the offeror's corporate officers, its senior managers and any employee who is responsible for making a decision or taking an action on this contract where the decision or action can have an economic or other impact on the interests of a regulated or affected organization.
- (b) The offeror shall describe in detail why it believes, in light

L.2 (Continued)

of the interest(s) identified in paragraph (a) of this section, that performance of the proposed contract can be accomplished in an impartial and objective manner.

- (c) In the absence of any relevant interest identified in paragraph (a) of this section, the offeror shall submit in its proposal a statement certifying that to its best knowledge and belief no affiliation exists relevant to possible conflicts of interest. The offeror must obtain the same information from potential subcontractors prior to award of a subcontract.
- (d) The Contracting Officer will review the statement submitted and may require additional relevant information from the offeror. All such information, and any other relevant information known to DOT, will be used to determine whether an award to the offeror may create a conflict of interest. If any such conflict of interest is found to exist, the Contracting Officer may (1) disqualify the offeror, or (2) determine that it is otherwise in the best interest of the United States to contract with the offeror and include appropriate provisions to mitigate or avoid such conflict in the contract awarded.
- (e) The refusal to provide the disclosure or representation, or any additional information required, may result in disqualification of the offeror for award. If nondisclosure or misrepresentation is discovered after award, the resulting contract may be terminated. If after award the Contractor discovers a conflict of interest with respect to the contract awarded as a result of this solicitation, which could not reasonably have been known prior to award, an immediate and full disclosure shall be made in writing to the Contracting Officer. The disclosure shall include a full description of the conflict, a description of the action the contractor has taken, or proposes to take, to avoid or mitigate such conflict. The Contracting Officer may, however, terminate the contract for convenience if he or she deems that termination is in the best interest of the Government.

L.3 52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (OCT 1997)

(a) Definitions. As used in this provision--

"Discussions" are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

"In writing" or "written" means any worded or numbered expression which can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

L.3 (Continued)

"Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

"Time", if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

- (b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).
- (c) Submission, modification, revision, and withdrawal of proposals.
 - (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.
 - (2) The first page of the proposal must show--
 - (i) The solicitation number;
 - (ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);
 - (iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

L.3 (Continued)

- (iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and
 - (v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.
- (3) Late proposals and revisions.
- (i) Any proposal received at the office designated in the solicitation after the exact time specified for receipt of offers will not be considered unless it is received before award is made and--
 - (A) It was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);
 - (B) It was sent by mail (or telegram or facsimile, if authorized) or hand-carried (including delivery by a commercial carrier) if it is determined by the Government that the late receipt was due primarily to Government mishandling after receipt at the Government installation;
 - (C) It was sent by U.S. Postal Service Express Mail Next Day Service-Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and U.S. Federal holidays;
 - (D) It was transmitted through an electronic commerce method authorized by the solicitation and was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or
 - (E) There is acceptable evidence to establish that

L.3 (Continued)

it was received at the activity designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers, and the Contracting Officer determines that accepting the late offer would not unduly delay the procurement; or

(F) It is the only proposal received.

- (ii) Any modification or revision of a proposal or response to request for information, including any final proposal revision, is subject to the same conditions as in subparagraphs (c)(3)(i)(A) through (c)(3)(i)(E) of this provision.
- (iii) The only acceptable evidence to establish the date of mailing of a late proposal or modification or revision sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the proposal, response to a request for information, or modification or revision shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, offerors or respondents should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.
- (iv) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.
- (v) The only acceptable evidence to establish the date of mailing of a late offer, modification or revision, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the

L.3 (Continued)

envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c)(3)(iii) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors or respondents should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

- (vi) Notwithstanding paragraph (c)(3)(i) of this provision, a late modification or revision of an otherwise successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.
 - (vii) Proposals may be withdrawn by written notice or telegram (including mailgram) received at any time before award. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision entitled "Facsimile Proposals." Proposals may be withdrawn in person by an offeror or an authorized representative, if the representative's identity is made known and the representative signs a receipt for the proposal before award.
 - (viii) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office.
- (4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.
 - (5) Proposals submitted in response to this solicitation shall be in English and in U.S. dollars, unless otherwise

L.3 (Continued)

permitted by the solicitation.

- (6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.
- (7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.
- (8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.
- (d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).
- (e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--
 - (1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with--the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and
 - (2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.
- (f) Contract award.
 - (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and

L.3 (Continued)

- subfactors in the solicitation.
- (2) The Government may reject any or all proposals if such action is in the Government's interest.
 - (3) The Government may waive informalities and minor irregularities in proposals received.
 - (4) The Government may evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.
 - (5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.
 - (6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.
 - (7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.
 - (8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.
 - (9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in

L.3 (Continued)

evaluating performance or schedule risk.

- (10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.
- (11) The Government may disclose the following information in postaward debriefings to other offerors:
 - (i) The overall evaluated cost or price and technical rating of the successful offeror;
 - (ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;
 - (iii) A summary of the rationale for award; and
 - (iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

L.4 52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

- (a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.
 - (i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.
 - (ii) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--
 - (A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate

L.4 (Continued)

pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities;

- (B) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market;
 - (C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.
- (2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.
- (b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:
 - (1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.
 - (2) As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

L.5 52.233-2 SERVICE OF PROTEST (AUG 1996)

- (a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Guy H. Hillman
DOT/RSPA/VOLPE NATIONAL
TRANSPORTATION SYS.CENTER,DTS-852
55 BROADWAY, KENDALL SQUARE
CAMBRIDGE, MA 02142

- (b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

L.6 SOLICITATION MAILING INSTRUCTIONS

To facilitate proper handling of your bid, offer or amendment thereof, it is imperative that the outermost envelope/packaging which contains the bid/offer/amendment bear the attached label (if a label is provided herewith) or be addressed in the format presented in the "Issued by" Block on page 1 of this solicitation.

L.7 INSTRUCTIONS TO OFFERORS

Since award may be made on the basis of initial offer received, offerors are cautioned to submit their best technical and cost proposals with their initial offer. The number of copies of proposals to be submitted is 6 for the technical proposal and 6 for the Business/Cost proposal.

I. Technical Proposal

- a. The Technical Proposal will be the most important factor in the evaluation of Offers and in the selection of contractors. Therefore, it must be specific and complete. It must contain no reference to prices in order to permit strict evaluation of technical merits alone. While all the technical factors cannot be detailed in advance, the Proposal must demonstrate a thorough understanding of requirements, and fully describe the Offeror's capabilities. A detailed description of the Offeror's facilities and experience required to satisfy the requirements shall also be included.
- b. The Technical Proposal must include the following six (6) sections:
- (1) Staff Support

L.7 (Continued)

This section must include the following:

Letters of intent from subcontractors and/or consultants named in the proposal, indicating their intentions to perform work under this contract and specifying the staffing level of commitment.

Names and detailed qualifications of the Offeror's staff and subcontractors and/or consultants who will perform the work.

Detailed discussion of the technical and managerial experience of the Offeror's proposed Project Manager, and of his/her counterparts in subcontractor organizations.

A separate identification of the Core Technical Staff (who will form the nucleus for work performed under this solicitation) from Adjunct Technical Staff that would be available only in a support role for specific tasks.

Detailed discussion of the qualifications of the Core Technical Staff.

A matrix breakdown, by SOW Task Item, of all available staff (including) subcontractors and consultants) who could support each item. The staff shall be individually and organizationally identified, and shall be grouped by appropriate level.

Required minimum staff qualifications for each professional labor category are as follows:

Program Manager - The program manager shall have as, a minimum, twenty years experience in transportation engineering, including a twelve years managing projects in the railroad research area and managing research in two other transportation engineering related below:

Highways or pavements,
Structures or dynamics
Engineering Mechanics
Geotechnology or Materials

Senior Engineers Senior Engs. shall possess, as a minimum, a doctorate in civil or mechanical engineering as well as five years post graduate experience in relevant transportation research disciplines. Alternatively, senior engineers may possess a master's degree in civil or mechanical engineering if they have eight years relevant post graduate research experience, or a bachelor's degree in civil or mechanical engineering with twelve years relevant experience.

Engineer -Engineers must, as a minimum, possess a doctorate , master's or bachelor's in civil or mechanical engineering with 2, 4, and 5 year's experience in relevant engineering disciplines after graduation.

Junior Engineers - Junior Engineers can be fresh out of school with a masters or doctorates in civil or mechanical engineering.

(2) Facilities

This section must include a detailed description of the nature, availability, and contractor experience with the following elements, where appropriate to the Technical Area requirements:
Computer Systems/Capabilities
Data Acquisition Systems/Hardware/Instrumentation
Laboratory/Test Support Facilities

If certain equipment/facility is not available in-house, the respondent must have an agreement with an organization that can provide the elements

NOTE: Civil and mechanical engineering may also be interpreted to include transportation engineering, applied mechanics, mechanics of materials, or material science.

L.7 (Continued)

(3) Management Program

In proposing a management program, the Offeror shall fully describe the system to be used for receiving, planning, administering, and coordinating specific work assignments, and for selecting subcontractors and/or consultants.

The Offeror shall also describe the system and procedures to be used to track and control costs at the TO and contract level. Offerors shall explain how potential cost overrun situations shall be identified. Offerors shall explain accountability within their organization for tracking and controlling costs.

(4) Task Item Capabilities

In this section the Offeror shall individually address each of the Task Items identified in the Statement of Work. The following format shall be used:

The discussion of each Task Item must be completely self-contained, repeating or reorganizing relevant material as required.

The offeror shall illustrate his capability to support each Task Item by demonstrating his experience and expertise as they would apply to each Task Item. In describing relevant experience the offeror should identify the scope of responsibility and the type of work performed.

The offeror must also identify the proposed staff for each Task Item, and should discuss the relevant qualifications of the staff as they would apply to each Task Item.

(5) Hypothetical Tasks

The Offeror's response to the Hypothetical Task included in this solicitation should emphasize the following:

- A. Formulation of the problem
- B. Technical approach
- C. Managerial approach, including the proposed labor mix or categories, and distribution of hours for each proposed Item.

It is important to note that, in responding to the hypothetical tasks, the offeror is not being asked to solve the problem, but rather to describe how he would go about setting up the problem for solution technically, managerially, and fiscally, and what would be the solution approach he would take.

In setting up the problem, the offeror must provide his own estimate of the scope required to meet the task objectives(s). In addition, he must provide a detailed task plan identifying the required items of work to meet the task objective, detailing the following for each item of work:

The staff members to be assigned.
The labor and funding levels (including, travel, documentation, and equipment).
The schedule, including intermediate milestones.
The objective being met.
The technical formulation of the problem.
The significant technical issues to be addressed.
The proposed solution approach, including the techniques to be used, the relevant equations and assumptions, and procedure for solving, reducing, or analyzing the relevant equations or data.
The response is limited to 25 double spaced pages including tables.

L.7 (Continued)

(6) Past Performance (See Sub-Section L.9)

II. Business Proposal

- a. This contract is estimated at a level of effort of 33,000 labor hours of direct professional effort, to be expended over a period of four (4) years, no more, no less, shall be proposed for evaluation purposes. This figure includes management efforts required to coordinate and administer the Technical Task Directives. Direct labor hours other than professional labor hours may be proposed, if such labor is normally charged directly. However, the non-professional direct labor shall be so identified (e.g., documentation, secretary).
- b. The following professional and non-professional skill mix must be used for cost estimating purposes over a four (4) year period. The direct labor hours are to be allocated equally over the four (4) year term:

Classification (or Equivalent)	Hours
Program Manager	3,000
Senior Engineers	18,000
Engineers	8,000
Junior Engineers	4,000
Total	33,000
Non-Professional Clerical/Admin- Total	3,000

If the Offeror proposes subcontracting effort and/or consultant effort, the professional hours proposed are considered a part of the above 33,000 hours. The Offeror shall prepare and submit a schedule correlating professional and non-professional hours offered to the above classifications and hours.

- c. An amount of \$200,000 is to be inserted in the cost proposal to cover the cost of travel and subsistence over the four (4) year life of the contract. Also, an amount of \$250,000 shall be included to cover Equipment, Hardware and Instrumentation and \$200,000 to cover Other Direct Cost such as documentation cost, miscellaneous material cost, etc. spread over the four years of the contract.
- d. The Offeror shall submit estimated costs and fixed-fee for the Business Proposal in accordance with FAR 15.2. It must contain cost data in total, and be supported by other cost data in sufficient detail that it can be analyzed meaningfully and in accordance with Paragraph L.4, "Cost Proposal Instructions" (AUG 1988). Any subcontracting costs shall also be projected by the various cost elements and included in the Offeror's cost proposal. Any

consultants shall also be identified, together with their rates and expected usage. Any escalation factors shall be identified together with rationale as to how these rates were reached for both the Offeror's and subcontractor's cost proposal.

- e. If the Offeror proposes to subcontract any of the work called for herein, he/she must provide the type (e.g., CPFF, FP,), amount and names of the contemplated subcontractors. Since any subcontractor which the Offeror proposes to use will be viewed during evaluation as an integral part of its capability, the Offeror is required as a minimum, to submit cost information regarding each proposed subcontractor to the same extent as required for the Offeror.
- f. It is government policy to encourage participation in the performance of contract activities of small business concerns and small business concerns owned and controlled by socially and economically disadvantaged persons. Offerors, other than small businesses, including subcontractors who are large businesses shall submit a Small Business and Small Disadvantaged Business Subcontracting Plan in accordance with FAR 52.219-9 contained in Section I.
- g. The Offeror shall include all of Section K and the Certificate of Current Cost or Pricing Data in his/her Business Proposal. Any proposed subcontractors shall also provide the same.

L.8 GENERAL NOTICES

- 1. Your proposal should be prepared in two (2) separate volumes entitled, respectively, "Technical Proposal" and "Cost/Business Proposal". The technical proposal should not contain any reference to prices in order to permit strict evaluation of technical merits alone. Each part of your proposal must be complete in itself so that evaluation of both parts may be accomplished concurrently.
- 2. It is expected that any contract resulting from this request will be a Cost Plus Fixed Fee, in the "term" form as defined in the Federal Acquisition Regulation 16.306(d)(2) and include all applicable clauses required by Federal laws, Executive Orders, the FAR and the DOT Acquisition Regulations.
- 3. This request does not commit the Government to award a contract. The Government reserves the right to reject any or all proposals or to negotiate separately with any sources considered qualified.
- 4. Your attention is invited to the fact that the Contracting Officer is the only individual who can legally commit the Government to the expenditure of public funds in connection with this proposed procurement.
- 5. The contract will be incrementally funded. Although full funding is expected over a period to four (4) fiscal years, the Government's liability will be limited to the amount specifically funded at any given time.
- 6. At the time of award, incremental funds will be obligated to the contract. As firm work requirements materialize, the Contracting Officer will issue Technical Task Directives (TOs) for work to be performed. A number of TOs may be issued during the life of the contract. The Contractor shall not proceed with any work under the contract, nor incur costs thereon, until so authorized by receipt of the Technical Task Directives. The contractor will have to maintain a job order accounting system to allow the allocating and accumulating of hours and costs per each Task Order.

L.9 PAST PERFORMANCE

Offerors shall submit their past performance information as a separate part of their proposal for both the Offeror and major (over 20% of the hours in the cost proposal) proposed subcontractors. Offerors shall submit this past performance data as a separate part of their proposal which is clearly marked and identifiable.

a. Each Offeror will be evaluated on its performance under existing and prior contracts, especially those for similar products or services. Performance information will be used both for responsibility determinations and as an evaluation factor. References other than those provided by the Contractor may be contacted by the Government and the information received will be used in the evaluation of the Offeror's past performance.

b. The offeror must provide a list of contracts that it is currently performing or has completed within the past three years. The offeror must make a good faith effort to insure that the list includes all prime contracts with a value over \$500,000 with the Federal Government. If the offeror can demonstrate that including information on all prime contracts with the federal Government over \$500,000 would create an undue burden on the offeror because of the large number of applicable contracts, then the list may be reduced to reflect contracts that are most relevant and for which data is readily available. The offeror must describe in its proposal what types of contracts were excluded, and what process was utilized to insure that all prime contracts with the federal Government over \$500,000 relevant to the Statement of Work were included. However, the list must include all contracts that are clearly relevant such as those applicable contracts reflecting the involvement of the proposed project manager or principal investigators. If performance is evaluated for each Task Order under a contract, the list may be modified accordingly. The list may also include other contracts considered relevant by the offeror including those with customers other than the Federal Government. Information regarding the offeror's performance as a subcontractor with the Federal Government will be obtained from the prime Contractor. Include the following information for each contract:

- 1) Name and address of customer
- 2) Contract number
- 3) Contract type
- 4) Total contract value
- 5) Description of contract work
- 6) Contracting Officer address and telephone number
- 7) Contracting Officer's Technical Representative's address and telephone number
- 8) Administrative Contracting Officer, if different from item 6, address and telephone number
- 9) List of major subcontractors
- 10) Assessment of relevance to requirements identified in this solicitation.
- 11) Whether any final or interim contract past performance report was or has been issued by the contracting agency. Copies of the final or most current past performance report must be submitted for the five most relevant contracts. Copies of reports on other than the five contracts considered most relevant by the offeror should not be submitted as part of the proposal, but will be obtained by the Government if the Government considers the contracts relevant.

c. From the above list, the Offeror must select no more than five contracts that it considers the most relevant in demonstrating its ability to perform the proposed effort. This list of most relevant contracts must be separated from the above list. Offerors may also include information on problems encountered on the five identified contracts and the offeror corrective actions.

d. The Offeror is responsible for making all reasonable efforts to ensure that a completed evaluation report is provided for each of the five cited contracts no later than the due date for receipt of proposals. If the contracting activity has completed a Contractor evaluation report and provided a copy to the Offeror, particularly those completed in accordance with Subpart 42.15 of the FAR, a copy of this report is sufficient. If not, the Offeror is responsible for ensuring that a copy of the performance evaluation report is provided directly to the Volpe Center Contracting Officer by the appropriate customer responding official no later than the proposal submission date. If the customer has not developed its own past performance evaluation report form, VNTSC Form 4200.7, included as Attachment J.3, shall be provided to the customer. Information contained in the evaluation reports shall be considered sensitive and shall not be released to

other Offerors. Failure of the Offeror to demonstrate that it has made all reasonable efforts to provide the required past performance reports will result in an unsatisfactory rating for this criteria. The Government reserves the right to obtain additional information from any of the referenced contract contacts and from other Government sources. If the Government receives negative past performance information, (indicating that performance was less than satisfactory) which is not accompanied by a response from the Offeror, a copy of the adverse information will be provided to the Offeror, which will be given a limited period in which to provide a response. If no response is received within the specified time-frame, the negative past performance information will be evaluated as submitted

- e. Offerors must send a Client Authorization Letter, (Attachment J-3) to all non-Federal Government references listed in their proposal to assist in the timely processing of past performance evaluations. Client Authorization Letters must be mailed to individual references no later than the proposal submission date. The Offeror shall include a copy of all completed Client Authorization Letters as part of the Past Performance submission. If the Offeror has no past performance history, it must affirmatively so state. Offerors with no past performance history or Offerors that are unable to provide past performance reports after making all reasonable efforts will not be evaluated favorably or unfavorably under this criteria, in accordance with FAR 15.305.
- f. In the case of a relatively new firm (i.e., established within the last 18 months), the Offeror may submit past performance information for contracts on which its corporate management has performed, to supplement any past performance information for the firm itself; this shall be specifically noted in the proposal submission.
- g. If the Offeror does not either include past performance history or states that no past performance history exists or can be obtained, the Offeror's proposal will be ineligible for award.
- h. The overall page limit for the list of the five most relevant contracts (including any information on the problems encountered on the contracts) is 15. This page limit does not apply to the list of other less relevant contracts required, or any information submitted by the Offeror to demonstrate that it has made its best efforts to ensure that customers provide past performance reports to the Government

SECTION M - EVALUATION FACTORS FOR AWARD

M.1 NUMBER OF AWARDS

One award for this procurement is anticipated; but the Government reserves the right to award more than one.

M.2 EVALUATION FACTORS FOR AWARD

Your proposal will be evaluated in accordance with the criteria described below. It is important that you direct your proposal to the criteria and cover each appropriately as you respond to the proposal requirements. The Technical Proposal will be the most important factor in the evaluation of your proposal and in the selection of the Contractor. Notwithstanding the fact that the Technical Proposal is of significant importance in the overall evaluation, offerors are cautioned not to minimize the importance of the Business Proposal since awards will be made to those offerors whose proposals are most advantageous to the Government after evaluation of both the Technical and Business Proposals. The criteria are as follows:

1. STAFF SUPPORT, MANAGEMENT PROGRAM, TASK ITEM CAPABILITIES

This part is divided into overall relevant technical capability of the organization, management program and of the competence and background of the offeror's staff. The offeror shall individually address each Task item. The discussion of each Task Item shall be completely self-contained, repeating or reorganizing the relevant material as required. The offeror shall illustrate his capability to support each of these anticipated Task Items by demonstrating his experience and expertise as they would apply to each Task Item. The offeror shall also identify the proposed staff, and their relevant qualifications, for each Task Item. (A discussion of the anticipated scope of each Task Item is contained in the Statement of Work under the section Detailed Items of Work).

A. Capability of the Organization

Evaluation of the organization's capability to support each Task Item.

Task Items

1. Service Load Definition: Analytic and experimental capability for the characterization of service loads on structural systems. Experimental characterization of load spectra requires the capability for the statistical analysis of large data bases from which analytic prediction of low percent occurrence behavior could be made.
2. Analysis of Structural Systems and Assemblies: Analytic capability to perform stress, deflection, and stability analyses of structural systems and components constructed of traditional materials (steel, wood, laminated wood, reinforced concrete and prestressed or post tensioned concrete) and new or innovative materials (composites or high strength concrete) under service load environment. Capability to utilize both numerical (FE) and classical methods of analyses, and to predict load transfer through components and subassemblies.
3. Stress, Mechanical Behavior, and Failure Analysis of Components: Capability to perform analyses of detailed states of stress and strain within structural components (including geometric, contact, and material nonlinearities, and elastic-plastic behavior). Capability to compute stress intensity factors, and ability to use fracture theory to calculate component failure stresses, crack initiation and growth rates.
4. Laboratory Mechanical Test Support: Capability of performing instrumented laboratory tests on structural specimens and components (including static, dynamic, and fatigue testing) for all types of construction materials.

5. Development of Experiment Designs and Conduct of Field Tests: Capability to develop detailed experiment designs for the conduct of field tests (including the requirements for statistical design for measurements and instrumentation, test operations and conduct, and data reduction and analysis).
6. Risk Assessment, Analysis and Management of Transportation Structures: Capability to perform qualitative risk assessment and quantitative risk analysis for structural systems and components. Ability to employ failure modes, effects, and criticality analysis methodology to measure structural system performance and degradation to estimate system safety and inspection and maintenance requirements.

B. Staff Qualifications

Evaluation of the proposed staff's capability to support the spectrum of anticipated Task Items. Consider experience, qualifications, and depth and soundness of technical background of each of the following three staff categories:

1. Project Manager.
2. Core Technical Staff that will form the nucleus for work performed under this solicitation.
3. Adjunct Technical Staff that would be available in a support role for specific tasks.

2. HYPOTHETICAL TASK

Evaluation of the completeness, practicality, and soundness of approach to the Hypothetical Task. The following criteria will be applied. The emphases of these criteria is on formulation of the problem, technical approach, and managerial approach for obtaining a technically adequate result within a reasonable time period and funding level. (Note: the offeror is not being asked to solve the problem, but rather how he would go about setting up the problem for solution, both technically and managerially, and what would be the solution approach).

1. Understanding of the problem and of the objectives of the task.
2. Technical formulation of the problem. Have all significant technical issues associated with the task been fully and correctly addressed? Have all items of work required to meet the task objective been correctly identified and defined?
3. Overall quality and applicability of the proposed methodology and of the technology to be employed.
4. Appropriateness and adequacy of the scope and planning of the proposed effort. Consider the staff members assigned to each task item, and labor and funding levels for each item and the overall effort (including computer, travel, documentation, and equipment), and the scheduling for each task item.

3. PAST PERFORMANCE

Under this part, the offeror's past performance on previous contract awards will be evaluated. The evaluation is based on the relevance and quality of the offeror's past performance on all contracts, particularly those which were/are of a similar scope, nature, magnitude, and complexity to this solicitation's requirements. The specific elements shall include:

- The offeror's overall work record as it relates to quality of service, timeliness of performance, cost control, business relations, and overall satisfaction rating
- The relevance and age of past performance information
- The number and severity offeror's problems
- The effectiveness of corrective actions implemented

The above criteria are weighted in descending order of importance as follows:

1. 2. 3.

2. Business/Cost Verification Criteria

Costs will be evaluated in terms of accuracy and completeness of the cost and pricing data. Costs will be verified as to fairness, appropriateness, and reasonableness. The following forms the basis of the cost verification. However, these criteria are not necessarily in the order of importance, nor are they individually scored.

(a) The degree of appropriateness of labor rates for the level and mix of labor categories.

(b) The appropriateness of the annual escalation factor for labor costs.

p The appropriateness of indirect costs rates.

(d) The appropriateness of the fixed fee proposed.

(e) The reasonableness of overall total cost as compared to the Government's estimate.

*(f) The adequacy and reasonableness of the Offeror's Small and Small Disadvantaged Business Subcontracting Plan (Refer to Section I, FAR Clause 52.219-9)

*This criterion does not apply to small businesses.

STATEMENT OF WORK

C. 1. INTRODUCTION

The Volpe National Transportation Systems Center (Volpe Center), an agency of the U.S. Department of Transportation (DOT), supports the modal administrations of the (DOT) through the conduct of engineering studies and research and development activities necessary to evaluate and improve transportation safety and performance. In addition to programmed studies in support of the Federal Railroad Administration (FRA), the Federal Transit Administration (FTA), Federal Aviation Administration (FAA), and the Research and Special Programs Administration (RSPA), the Volpe Center is frequently called upon to conduct short-term investigation of specific problems in the general area of Structures and Mechanics. Specific tasks may range from detailed studies of specific components, to investigations related to an entire class of fleets, structures and operating systems. In the future, the Volpe Center may also be called upon to provide similar support to the National Highway Traffic Safety Administration (NHTSA), the Federal Highway Administration (FHWA), and the United States Coast Guard (USCG).

Technical support is sought for specialized engineering services in areas of Structures and Mechanics for work requirements which cannot be specified precisely at the present time. As work requirements become identified and formulated, the contractor will be expected to assign qualified personnel with sufficient experience and ability in the study area to understand the problem quickly and to formulate and carry through an effective approach to its solution.

C.2. OBJECTIVES

The objective of this contract is to provide engineering support and data to the Volpe Center technical staff through the accomplishment of individual Task Order (TO's) in the general technical area of Structures and Mechanics. Conduct of these tasks will permit the Volpe Center to respond rapidly and effectively to needs for engineering support by DOT's modal agencies in response to typical exigencies related to transportation safety and performance. Achievement of the objective requires that the contractor supporting the research must possess expertise, experience, and a highly skilled core staff with specialized capabilities in: interpretation of time-series loadings in terms of peak amplitude or range exceedances, theory and application of finite-element methods including geometric and material nonlinearities; stress, deflection, and stability analyses of structures; impact and penetration mechanics; composite materials; advanced analysis methods for plate and shell structures; American Society for Testing and Materials (ASTM) standard laboratory practices for mechanical testing; failure analysis of structures/components, nondestructive test and evaluation (NDT and NDE), structural dynamics, risk assessment and reliability analyses, service load environment data acquisition and their statistical characterization, relevant field test techniques for load and deformation measurements, and the conduct of lab and full scale field tests for structural and material behavior assessments.

C.3. SCOPE

The contractor shall either directly or through subcontractor support perform those analytical and experimental investigations necessary to support the objectives given above. This is a Task Order type solicitation aimed at procuring quick-turnaround technical response and support. The contractor is expected to apply the best available data and technology to developing solutions to specific problems within the period of performance of each TO.

C.4. DETAILED ITEMS OF WORK

The contractor shall provide the personnel, services, materials, facilities, and equipment necessary to perform the work specified in the task areas below:

Task Area 1 - Service Load Definition

The contractor shall determine the service loads to which systems and components are subjected under their respective operating conditions. Load definition includes the preparation of nominal anticipated service life load histories in terms of multi-parameter spectra. Three-parameter representations for each significant load or stress component will generally be required, viz: mean-amplitude or range-ratio, plus cross-correlation. Both deterministic and random (probabilistic) loading representations will be employed.

In dealing with random loads, the contractor must have experience with time series statistics and models for the treatment of stationary and transient processes, including the reduction of field test data to obtain level and peak exceedance curves by means of digitizing and discriminating analog data, interpretation of rainflow or threshold peak count data, etc. The contractor will also be expected to preprocess such data to identify trends, transients, outliers, gage/circuit dropouts, and data acquisition anomalies.

The contractor shall be able to determine the effect of environment and operation induced changes on loads, based on knowledge of the mechanics of interaction between structural systems and components and their environments. Examples include the effects of changing load environment on rail vehicles due to substructure degradation and guideway anomalies, characterization of high speed sled guideway dynamic loads and stresses, assessment of aircraft gust or maneuver loads, eddy-current braking effects on rail head adhesion forces, thermal loads, seismic load spectra definition, and the effects of seaways on marine vehicles and offshore structures.

The contractor must also be able to estimate peak levels and time durations of abnormal loads which may be imposed on structures, e.g., due to earthquakes, in train-to-train or ship-to-ship collisions, in aircraft crashes, and in ballistics penetrations.

Task Area 2 - Analysis of Structural Systems and Assemblies

The contractor shall perform analyses of the response of structures to the service load environment. Such analyses shall include displacements, component-to-component transfer loads, component nominal stresses, stability analyses, and estimation of collapse loads and collision/crash energy absorption capability under both static and dynamic conditions. Examples of such analyses are loads and stresses in freight and high speed rail vehicle truck frames and mechanical equipment, rolling and contact stresses on guideway rails, resistance of railroad tank car shells to penetration, and thermally induced buckling of rails due to constrained expansion. The contractor must be able to employ both numerical (finite-element) and classical methods of analysis, and must be sufficiently familiar with the fundamental principles of such analyses so as to be able to formulate new approaches/analyses as required.

Task Area 3 - Stress, Mechanics and Failure Analysis of Components

The contractor shall perform analyses of detailed states of stress and strain within structural components. Such analyses may include geometric, contact, and material nonlinearities, elastic-plastic behavior, calculation of stress intensity factors, and use of fracture theory to calculate component failure stresses. Examples of such analyses include the plastic flow of rail-heads, aircraft landing gear fatigue life estimates, determination of the change in residual stresses induced by accidental brake-drag overheating of rim-quenched railroad car wheels, estimation of component energy absorption capability in collisions or crashes, prediction of crack initiation and propagation of adversely loaded pipelines, and micro-buckling of composite filaments.

Task Area 4 - Laboratory Mechanical Test Support

The contractor shall perform laboratory mechanical tests to support the objectives of the analyses described in Tasks 1 through 3. Such testing may include static, dynamic and fatigue tests, tests for mechanical properties of materials including composites, tests to destruction of small components and subassemblies to determine nonlinear collapse characteristics, metallurgical evaluations of material microstructural characteristics, and nondestructive testing/evaluation diagnostics.

Task Area 5 - Experiment Design Development and Conduct of Field Tests

The contractor shall develop experiment designs and perform support tasks for full-scale experiments within the scope of the Structures and Mechanics area. Experiment design includes measurement definitions and requirements, instrumentation locations and specifications, and the complete statistical design of the experiment including data acquisition and test logistics. Field experiment support requires capabilities for actual test conduct and for the performance of post-test data reduction, processing, and analysis. The contractor will be expected to work independently or in coordination with other organizations where field tests are involved. Such tests may be conducted by government organizations at government test facilities, or by government/industry teams working in an actual operating environment.

Task Area 6 - Risk Assessment, Analysis and Management of Transportation Structures

The contractor shall perform probabilistic risk analyses (PRA) on specified transportation structures; e.g. railroad track, ship hulls, soil embankments or highway bridges to determine the probability of adverse events and the consequence of their occurrence. The PRA shall employ prior structural reliability and risk assessments (SRRA) based on failure mode analysis, estimated or calculated component structural capacity, and the predicted or measured load spectra imposed on the structure. The SRRA shall quantify and take into consideration the uncertainty in measuring the existing condition of the structural system, subsystem or component; the environment (including climatic and service conditions) and improvements from normal maintenance or upkeep on the system. Results of the PRA shall be used to:

- Quantify component or system safety,
- Determine component degradation rates,
- Establish inspection requirements and
- Examine influence of component performance on overall system safety.

The contractor shall, as required, identify sources, develop plans and strategies to collect and reduce field data and to execute those strategies to provide the Volpe Center with the information required to meet specific sponsor goals. For new systems where data is unavailable, the contractor shall identify and/or develop and perform the theoretical analyses and tests that will provide usable results for the PRA.

C.5. TECHNICAL REPORTS

1) Each TO will be culminated by one of two types of reports, denoted as letter type or technical, unless otherwise specified in the TO. The letter type will be used primarily for smaller tasks such as data verification analyses, field support visits, task planning documents, literature searches, study plans, conference planning documents, and schedules. The technical report will be used for major tasks and may include earlier letter reports as subsections. The technical report will be in a form suitable for publication in accordance with the "Contractor Report Exhibit" dated June 1, 1977 attached to Section J and made a part of this contract.

2) The TO will specify the type of report and the number of copies required. The reports submitted shall be subject to review and approval by the Volpe Center Technical Monitor, and if necessary will be modified and resubmitted.

C.6. MANAGEMENT REPORT

The Contractor shall prepare and submit three (3) copies of a Monthly Summary Status Report, in a format to be supplied by the Contracting Officer, and shall contain the following:

1) A brief description of the progress on each TO. It shall describe the work accomplished during the reported month, problem areas encountered, corrective actions taken and work planned for next reporting period.

2) A listing of all TO's assigned, and, for each TO: completion dates scheduled, status as to open or complete, professional labor allocation, and hours expended during reported month, cumulative hours expended on that TO, dollar amounts allocated, monthly dollar amounts expended, cumulative amounts expended with regard to each TO, and the aggregate amount for the contract. The report will highlight any problem areas with respect to project expenditures relative to budget, progress relative to schedule, or overall resource allocation.

C.7. MEETINGS AND ORAL PRESENTATIONS

The Contractor shall meet with the Volpe Center Technical Monitor at regular intervals to discuss the status of the work and make oral presentations. Additional meetings, at the request of the Technical Monitor may be required based on each TO's requirements. Such additional meetings may be held at the Volpe Center, and contractor's plant, or elsewhere as the situation warrants. The Contractor shall furnish the Technical Monitor with a minimum of two (2) sets of hard copies of visual aid materials used in the regular status reviews, and four (4) sets of hard copies of visual aid materials used in the special meetings.

C.8. DOCUMENTATION OF COMPUTER PROGRAMS

1. The Contractor shall document the results of all software and computer program developments and deliver the final optimum codes, accompanied by appropriate user instructions, in the form of technical reports for each TO.
All software and computer programs shall be demonstrated on appropriate computers as agreed to by the Volpe Center Technical Monitor. New programs/codes shall be in a standard language as requested by the Volpe Center Technical Monitor. Modifications to existing programs are to be coded according to existing program standards and changes to existing documentation shall conform to existing documentation standards. Source programs shall be delivered on a medium (e.g., diskette, e-mail file, etc) specified in the TO by the Volpe Center Technical Monitor. If so required, the Contractor shall demonstrate successful implementation and sample program solutions on a the Volpe Center system prior to acceptance of the final code.
2. If any task involves any aspect of development of computer programs or automated data systems, the Contractor may be required to furnish documentation according to the guidelines of FIPS PUB 38 entitled
"Guidelines for Documentation of Computer Programs and Automated Data Systems" to the level specified in the TO. A copy of the FIPS PUB 38 entitled "Guidelines for Documentation of Computer Programs and Automated Data Systems" is referenced in Section J and made a part of this contract.
3. Should any of the programs utilized in a specific TO study be leased, procured, or obtained under license, by the Contractor for delivery to the Volpe Center under this contract, the Contractor shall, at a minimum, document the source, name and number of the program, input and output variables including data file modules, and licensing restrictions.

U.S. DEPARTMENT OF TRANSPORTATION
VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
KENDALL SQUARE, CAMBRIDGE, MA 02142

June 1, 1977

CONTRACTOR REPORT EXHIBIT

TYPE OF REPORTS

Unless otherwise specified in the schedule of the contract, VNTSC Contractor Reports fall into the four basic categories defined below:

1. Monthly Progress Reports – Monthly Progress Reports summarize highlights of the contractor's monthly effort, briefly cover problem areas and proposed solutions, present a brief technical discussion, comment on the scheduled progress of the study, and conclude with the anticipated work to be covered in the succeeding month. The presentation of the data is informal.

2. Quarterly Progress Reports – Quarterly Progress Reports summarize work accomplished during each 3-month period of the contract. In addition to factual data, these reports should include a technical analysis section which interprets results obtained, recommends further actions, and relates occurrences significant to the ultimate objectives of the contracted work. A sufficient number of diagrams, sketches, curves, photographs, and other visual aids shall be included to accentuate results and to make the presentation more intelligible and meaningful.

3. Interim Reports – Defined in Paragraph 4(c) of the attached DOT-TST-75-97, dated May 1975.

4. Final Technical Reports – Defined in Paragraph 4 (d) of attached DOT-TST-75-97.

REQUIREMENTS FOR REPORTS

Unless otherwise specified in the schedule of the contract, Monthly Progress and Quarterly Progress Reports shall be informal in nature and not subject to the provisions of the attached DOT-TST-75-97.

TECHNICAL REPORTS

a. Unless otherwise specified in the contract schedule, Interim and Final Technical Reports shall be prepared and submitted in accordance with the specifications of DOT-TST-75-97 'Standards for the Preparation and Publication of DOT Scientific and Technical Reports' dated May 1975, consisting of twenty (20) pages, attached hereto and made a part hereof.

b. In addition to the requirements set forth in DOT-TST-75-97, attached, Interim and Final Technical Reports shall contain an Appendix entitled "Report of New Technology Appendix" containing the following for each "subject invention" as defined in the Patent Rights clause of the contract.

- (1) An appropriate title;
- (2) An identification of the page or pages in the report wherein the "subject invention" is described; and
- (3) Other comments, if any, the writer wishes to make.

In the event no "subject inventions" are achieved during the performance of work under this contract, a Report of New Technology Appendix is still required to be included in any interim or final technical report to identify the page(s) wherein improvements made under the contract are described.

The foregoing "Report of New Technology Appendix" is intended to be brief and does not replace the reporting requirements under the clause of the General Provisions of the contract entitled "Patent Rights."

TECHNICAL MONITOR

The VNTSC engineer monitoring the contract is referred to as the Technical Monitor. The Technical Monitor is the VNTSC spokesman in all technical matters relating to the contract and is ultimately responsible for VNTSC technical management of the contract. The Technical Monitor as Contracting Officer's Representative for technical matters within the scope of the contract, is the final VNTSC technical approval authority for Contractor Reports.

NUMBER OF REPORTS TO BE PROVIDED

Unless otherwise specified in the contract schedule, the Contractor shall provide the number set forth below to the activities indicated:

<u>Reports</u>	<u>No. of Copies</u>	<u>Forward to</u>
Monthly Progress	8	Technical Monitor
Quarterly Progress	15	Technical Monitor
Interim (Manuscript)	4 (clean)	2 to Technical Monitor 1 to VNTSC Patent Counsel, TSC-141 1 to TSC Organization & Management Branch, VNTSC-831
Interim	1 reproducible & Up to 250 copies*	VNTSC Organization & Branch, VNTSC-831
Final (Manuscript)	4 (clean)	2 to Technical Monitor 1 to VNTSC Patent Counsel, VNTSC-141 1 to VNTSC Organization & Management Branch, VNTSC-831
Final	1 reproducible Up to 250 copies*	VNTSC Organization & Management, VNTSC-831

A copy of the letter transmitting all reports shall be sent to the Administrative Contracting Officer.

The Technical Monitor will review all reports and notify the Contracting Officer in writing, of the results of the review specifically whether approved or disapproved. The notification of the results of the review of Interim (Manuscript) and Final (Manuscript) shall be within ninety (90) days after submission.

*Not to exceed 25,000 pages in the aggregate (See Title 1, Paragraph 2-1 of Government Printing & Binding Regulations, October 1974).

Technical Report Documentation Page

1. Report No. DOT-TST-75-97		2. Government Accession No. PB 245400		3. Recipient's Catalog No.	
4. Title and Subtitle STANDARDS for the Preparation and Publication of DOT Scientific and Technical Reports				5. Report Date May 1976	
				6. Performing Organization Code DOT/TST	
7. Author (s)				8. Performing Organization Report No. DOT-TST-75-97	
9. Performing Organization Name and Address Office of R&D Plans and Resources Office of the Assistant Secretary for Systems Development and Technology U.S. Department of Transportation				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address SAME AS ABOVE				13. Type of Report and Period Covered N/A	
				14. Sponsoring Agency Code TST	
15. Supplementary Notes This document is used as performance exhibit in all DOT R&D contracts and grants.					
16. Abstract The document provides standards for the preparation, publication, and distribution of scientific and technical reports issued by DOT and DOT contractors. The standards do not apply to technical or training manuals, journal articles, brochures or pamphlets. The document contains guidelines for report formats, title pages and covers, metric conversions, use of illustrations and physical layout requirements. Report review and acceptance procedures are specified, as are the rules for assignment of document numbers and distribution of accepted reports.					
17. Key Words technical documentation R&D management information processing			18. Distribution Statement This document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia, 22161.		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified		21. No. of Pages 21	22. Price	

STANDARDS FOR THE PREPARATION AND PUBLICATION OF DOT SCIENTIFIC AND TECHNICAL REPORTS

**Appendix to Order DOT 1700.18B, "Acquisition,
Publication and Dissemination of DOT
Scientific and Technical Reports."**



May 1975

R & D Management Report

**Document is available to the U.S. public through the
National Technical Information Service,
Springfield, Virginia 22161.**

U.S. DEPARTMENT OF TRANSPORTATION

**Office of Assistant Secretary for
Systems Development and Technology
Washington, DC 20590**

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1. PURPOSE. This document establishes standards for scientific and technical reports prepared by or for the Department of Transportation (DOT). The application of these standards aids in the interchange of scientific and technical information and in the reduction of costs in the preparation, publication, and dissemination of such information. This document is reviewed periodically by a DOT R&D Information Working Group convened to ensure its compatibility with Congressional and DOT requirements and conformance to national documentation standards. It also is included as Appendix 1 to Order DOT 1700.18B, "Acquisition, Publication, and Dissemination of DOT Scientific and Technical Reports," and as an exhibit in all DOT R&D procurement contracts, as applicable.
2. EXCLUDED DOCUMENTS. These standards do not apply to operational instructions and directives, technical or training manuals, journals and journal article manuscripts, preprints or reprints, brochures or pamphlets. Also excluded are Technical Sharing, management and administrative documents. However, at the discretion of the Sponsoring organization, those documents which contain significant technical information may be included.
3. REFERENCES:
 - a. American National Standards Institute (ANSI) document, Writing Abstracts, Z39.14-1971; \$3.50; Available from the American National Standards Institute, 1430 Broadway, New York, NY 10018
 - b. Bibliographic Procedures and Style: A Manual for Bibliographers in the Library of Congress. \$0.70. Available from the Superintendent of Documents, U.S. Government Printing Office, D.C. 20402.
 - c. ANSI document, Guidelines for Format and Production of Scientific and Technical Reports, Z39.18-1974, \$4.00; Available from the American National Standards Institute, 1430 Broadway, New York, NY 10018
 - d. U.S. Congress Joint Committee on Printing, Current Government Printing and Binding Regulations; Available from the Joint Committee on Printing, U.S. Congress, Committee Room S-151, U.S. Capitol, Washington, D. C. 20510.
 - e. Department of Defense/Engineers Joint Council, Thesaurus of Engineering and Scientific Terms, 1967. Available from the Engineers Joint Council, 345 East 47th Street, New York, NY 10017.
 - f. Department of Commerce, List of Business and Economic Terms, COM-73-12000, December 1973, AD-641092; Available from the National Technical Information Service, Springfield, Virginia 22161.
 - g. ASTM document Metric Practice Guide, Z210.1 - 1973. Available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, designation E380-72.
 - h. Department of Commerce, Units of Weights and Measures, National Bureau of Standards Miscellaneous Publication 286, SD Catalog No. C13.10.286, \$2.25; Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402.

4. DEFINITIONS.

a. Sponsoring Agency: The DOT organizational element having program responsibility for scientific or technical effort. A public body (state, city, commission, etc.) also may be a sponsoring agency in cooperation with a DOT element.

b. Performing Organization: The DOT element (either headquarters, field, or laboratory), contractor, grantee or recipient of DOT R&D funds reporting specific scientific or technical research findings which result from investigations, demonstrations, tests or experiments.

c. Interim Report: A report issued during the course of a project, or a major part thereof, to reflect completion of a specific phase of a project assignment. This method of reporting can also be used where a periodic report of progress is of interest to the transportation community at large. Interim reporting, for example, can be the communications medium for early reporting under a project of considerable duration or relative complexity.

d. Final Report: A report issued at the completion of a project, or a major portion thereof, to signify the accomplishment and formal "closeout" of a project.

e. Transportation Research Information Services Network (TRISNET): TRISNET is sponsored by DOT to improve the efficiency and effectiveness of the transportation-related information services. It includes such services as the Highway Research Information Service (HRIS), Railroad Research Information Service (RRIS), Maritime Research Information Service (MRIS), TRISNET Repository at NTIS, and other services still under development.

5. REQUIREMENTS. DOT-sponsored scientific and technical reports shall conform to the requirements of Document DOT-TST-75-97, security regulations, and implementing instructions of the sponsoring organization.

6. LEGAL CONSIDERATIONS. The Government may be subject to liability for misuse of the literary or intellectual property (patents, trademarks, it proprietary information") of others. To ensure that technical reports can receive the widest possible dissemination, report writers and editors should observe the following guidelines:

a. Copyright. No copyrighted material may be incorporated into a report unless written permission of the copyright owner has been obtained. Prior use of copyrighted material in another Government publication does not necessarily constitute permission to use it in a DOT publication. Where permission has been obtained and the material is used in a report, it shall be identified by a statement substantially as follows:

Reprinted from (title of publication) by (name of author) by permission of (name of copyright owner). Year of first publication_____

b. Courtesy requires that acknowledgment or credit be given (by footnote, bibliographic reference, or a statement in the text) for the use of the material contributed or assistance rendered by someone else though no copyright notice is involved.

c. Unpublished work may be protected under common law or equity even though there is no copyright notice. Problems relating to the protection given to unpublished work will be referred to the Office of the General Counsel.

d. Privately Owned Information: To avoid restriction on availability of reports, every effort should be made to avoid the use of proprietary information accepted by the Government for limited purposes. Such proprietary information will be used only if it is essential to the understanding of a report and only after approval by the Office of the General Counsel. Reports containing such proprietary information will bear a statement restricting availability and handling, as required (Paragraph 7b(9)).

e. Data Use Restriction: In the event that the Contractor furnishes any information or data which the Contractor considers to be proprietary under the terms of the contract, the Contractor shall affix the following use restriction legend to such proprietary data, shall mark such data with the number of the prime contract, and subcontract, if applicable; and shall deliver such proprietary data directly to the Government. No other legend is authorized and the Government will thereafter treat the data in accordance with such legend.

DATA USE RESTRICTION

These data, furnished under U.S. Government Contract No. _____, may be duplicated and used by the Government with the express limitations that the data may not be disclosed outside the government, nor be used for purposes of manufacture, without prior permission of the contractor. These restrictions do not limit the Government's rights to use or disclose any data obtained from another source without restriction. This legend shall be marked on any reproduction of these data in whole or in part.

f. Trademarks: The term "trademark" includes any word, name, symbol, device or any combination thereof, adopted and used by a manufacturer or merchant to identify his goods and distinguish them from those manufactured and/or sold by others. It is improper to use a "trademark" to identify goods not manufactured or sold by the owner of a trademark or his licensee. In general, the use of trademarks is discouraged. Where feasible, goods should be identified by a type designation or a structural feature that distinguishes them from other goods.

g. Trade Names and Manufacturer's Names:

(1) Under Section 522 of Title 5, United States Code, as implemented by DOT Public Affairs Management Manual, DOT Order 1210.5, 2-6-74, reports which once were not available to the public, may be obtained by anyone who wants them. Particularly to be avoided is the appearance of endorsing or favoring a commercial product, commodity or service. Trade names or the names of manufacturers will not be given unless the report will not contain meaningful information without them.

(2) When trade names or manufacturers names are used in a report, this fact will be specifically brought to the attention of the reviewing office before the report is approved. Such reports shall contain the front cover (no border required):

NOTICE

The United States Government does not endorse products or manufacturers. Trade or manufacturer's names appear herein solely because they are considered essential to the object of this report.

(3) DOT operating elements should first refer all legal considerations to their appropriate General Counsels before seeking legal advice at the Departmental level.

7. FORMAT.

a. Order of Elements. When some or all of the following elements are appropriate for a report, they will be included and the standard order will be as follows:

	Self Cover Inside Self Cover
Front Matter	Technical Report Documentation Page Preface Metric Conversion Factors Table of Contents, List of Illustrations, List of Tables, List of Abbreviations and Symbols
Body of Report	Introduction Main Text Conclusions Recommendations
Reference Material	Appendices Glossary References Bibliography Index
	Self Cover

b. Self Cover.

(1) Description. Whenever possible, use self covers (of the same weight paper as the text) for all reports. Include on the cover the information shown in groupings plus special markings (such as security classification) as specified by the sponsoring operating elements. Recommended group related items are shown in Figure 1A. A sample of dual-sponsored cover is shown in Figure 1B. Items on self covers also may be prepared by standard typewriter.

(2) Report Number. Each report shall carry a unique alphanumeric designation provided by the sponsoring operating element (for example, CG-D-14-74; FAA-RD-75-10; or FHWA-PA-RD-75 for a state-sponsored report in cooperation with a DOT element). When a report is prepared in more than one volume, repeat the report number on all volumes and add the appropriate volume number in Roman numerals (for example, FAA-RD-75-10,I and FAA-RD-75-10,II).

(3) Title and Subtitle. Display the title prominently and use words which indicate clearly and briefly the substance of the report. Set subtitle, if used, in smaller type or otherwise subordinate it to the main title. When a report is prepared in more than one volume, repeat the primary title and report number and identify each separate volume. On reports documenting computerized models use the term "Computerized Model" as the major subtitle.

(4) Author(s). The Government Printing and Binding Regulations permit the use of the author's name on self covers. The author's name shall be subordinated in appropriately smaller type than the title. Give the name(s) of the author(s) in conventional order (for example, John R. Doe, or if author prefers, J. Robert Doe). The author's name shall not be placed on the cover if the publication is bound with a separate cover (index stock).

(5) Performing Organization and Address. Give name, street, city and zip code. List no more than two levels of an organizational hierarchy.

(6) DOT Insignia. Place the DOT insignia on all reports as shown in Figures 1A and 1B. In cases where a public body (state, city, commission, university, etc.) is a sole sponsoring agency, the DOT insignia may be deleted and appropriate public body substitution made. Dual sponsorship may be recognized by inclusion of appropriate insignias and identifying information.

(7) Date. Each report shall carry a date by month and year. The sponsoring element may specify the basis for dating. If it does not, the originator will provide a date.

(8) Type of Report. Indicate nature of report, i.e., interim or final. If the report is a revision, state whether it supersedes the previous edition.

(9) Distribution Statement. Each DOT sponsoring operating element shall assign a distribution statement, which is placed on the self cover and printed on all copies. The statement that appears on the cover must also appear in Block 18 of the Technical Report Documentation Page. Refer to Order DOT 1210.5, DOT Public Affairs Management Manual of 2-6-74 for additional information concerning availability of documents. Use one of the following as appropriate:

GROUP I

Report No. CG-D-14-74

GROUP II

Title

**REMOTE SENSING OF
OIL SLICKS**

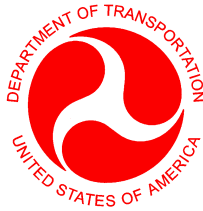
Subtitle (if any)

Author (s)

Performing
organization
name and address

**John R. Doe
ABC Laboratories, Inc.
405 Main Street
Zedburg, TN 37000**

DOT
insignia



Date

September 1974

Type of report

FINAL REPORT

Distribution
statement

**Document is available to the U.S. public through the
National Technical Information Service,
Springfield, Virginia 22161.**

GROUP III

DOT
Operating element
DOT
headquarters element
and address

**Prepared for
U.S. DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD
Office of Research and Development
Washington, DC 20590**

**FIGURE 1A. SAMPLE, SELF COVER (Items on cover also may be prepared by
standard typewriter).**

Report No. FAA-RD-74-144

**EVALUATION OF THE STRUCTURAL INTEGRITY OF AN AIRCRAFT
LOADING WALKWAY UNDER SEVERE FUEL-SPILL
FIRE CONDITIONS**

George B. Geyer
Lawrence M. Neri
Charles H. Urban

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
National Aviation Facilities Experimental Center
Atlantic City, New Jersey 08405**



**OCTOBER 1974
FINAL REPORT**

Document is available to the U.S. public through the
National Technical Information Service,
Springfield, Virginia 22161.

Prepared for

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Systems Research & Development Service
Washington, D.C. 20590**

**AIR TRANSPORT ASSOCIATION OF AMERICA
Washington, D.C. 20006**

**FIGURE 1B. SAMPLE, SELF COVER - DUAL SPONSORS (Items on cover also
may be prepared by standard typewriter).**

(a) Document is available to the U.S. public through the National Technical Information Service, Springfield., Virginia 22161.

(b) Approved for U.S. Government only. This document is-exempted from public availability because (fill in reason). Transmittal of this document outside the U.S. Government must have prior approval of the (fill in DOT sponsoring element).

(c) Approved for (fill in DOT sponsoring operating element) only. This document is exempted from public availability because (fill in reason). Transmittal of this document outside the (fill in sponsoring operating element), Department of Transportation must have prior approval of the (fill in responsible office).

(10) Sponsoring Name and Address. Give name, city, state, and zip code of the sponsoring agency. When a public body (state, city, commission, university, etc.) is a sponsoring administration in cooperation with the DOT, grouping will reflect this cooperation, such as:

Prepared for
DEPARTMENT OF TRANSPORTATION
Atlanta, GA 30334

in cooperation with
(DOT Headquarters element, address)

c. Inside Self Cover. Special notices, such as reproduction, safety precautions, sponsor's disclaimer, and statement of compliance with special regulations are placed on the inside self cover as required by the sponsoring agency. Place the following notice on the inside self cover of all DOT reports:

NOTICE

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The-United States Government assumes no liability for the contents or use thereof.

d. Front Matter.

(1) Technical Report Documentation Page (DOT F 1700.7). Include one completed Technical Report Documentation Page as the first right-hand page after the cover in each report or volume. The documentation page replaces the traditional front title page and abstract page. A model completed page is shown in Figure 2A, with instructions for completing the documentation page for the author's use. Adequate and accurate completion of this page will assist documentation of a report. The documentation page also may be distributed in lieu of copies of the published report. This form is available for DOT operating elements from the DOT Warehouse, Publications and Forms, TAD-443-1. For contractors and grantees, the documentation page is available from the Contracting Officers of the sponsoring operating elements. The information presented on the documentation page is the basis for input into the TRISNET and the National Technical Information Service (NTIS).

1. Report No. FAA-RD-74-74, I		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle ANALYSIS OF PREDICTED AIRCRAFT WAKE VORTEX TRANSPORT AND COMPARISON WITH EXPERIMENT Volume I - Wake Vortex Predictive System Study				5. Report Date April 1974	
				6. Performing Organization Code	
				8. Performing Organization Report No. LM-74-2B	
7. Author (s) M.R. Brashears, N.A. Logan, S.J. Robertson, K.R. Shrider and C.D. Walters				10. Work Unit No. (TRAIS) FA405/R4115	
9. Performing Organization Name and Address Lockheed Missiles & Space Company, Inc.* Huntsville Research & Engineering Center 4800 Bradford Drive Huntsville, AL 35807				11. Contract or Grant No.	
				13. Type of Report and Period Covered Final Report April to December 1973	
12. Sponsoring Agency Name and Address U.S. Department of Transportation Federal Aviation Administration Systems Research and Development Service Washington, DC 20590				14. Sponsoring Agency Code FAA/ARD-500	
15. Supplementary Notes *Under contract to: U.S. Department of Transportation Transportation Systems Center Kendall Square Cambridge, MA 02142					
16. Abstract A unifying wake vortex transport model is developed and applied to a wake vortex predictive system concept. The fundamentals of vortex motion underlying the predictive model are discussed including vortex decay, bursting and instability phenomena. A parametric and sensitivity analysis is presented to establish baseline uncertainties in the algorithm to allow meaningful comparison of predicted and measured vortex tracks. A detailed comparison of predicted vortex tracks with photographic and groundwind vortex data is presented. Excellent agreement between prediction and measurement is shown to exist when sufficient wind data are available. Application of the Pasquill class criteria is shown to be an effective technique to describe the wind profile in the absence of detailed wind data. The effects of wind shear and the Ekman spiral on vortex transport are discussed. It is shown that the combination of wind shear and ground plane may be possible mechanisms underlying vortex tilting and a theoretical explanation is advanced that is somewhat supported by comparison with the experimental data. Finally, recommendations for further vortex data collection in the vicinity of an airport are presented. Volume II, 246 pages, contains appendices.					
17. Key Words Vortices Ground Plane Aircraft Wakes Vortex Tilting Wake Turbulence Vortex Transport Wind Shear Wake Vortex Predictive System				18. Distribution Statement Document is available to the U.S. public through the National Technical Information Service, Springfield, Virginia, 22161.	
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 256	
				22. Price	

Make items 1, 4, 5, 7, 9, 12, 13, and 18 agree with the corresponding information on the report cover. Use all capital letters for main title (item 4). Leave items 2, 6, and 22 blank. Complete the remaining items as follows:

3. Recipient's Catalog No. Reserve for use by report recipient.
8. Performing Organization Report No. Insert if performing organization wishes to assign this number.
9. Performing Organization Name and Address (include zip code).
10. Work Unit No. (TRAIS). Use the number code from the applicable research and technology resume which uniquely identifies the work unit in the Transportation Research Activity Information Service. For Highway Planning and Research (HP&R) Program reports, include the FPC Code assigned in the study.
11. Contract or Grant No. Insert the number of the contract or grant under which the report was Prepared. For Highway Planning and Research (HP&R) Program reports, include also the State study number.
15. Supplementary Notes. Enter information not included elsewhere but useful, such as: Prepared in cooperation with.... Translation of (or by).... Presented at conference of.... To be published in..., Other related reports.
16. Abstract. Include a brief (not to exceed 200 words) factual summary of the most significant information contained in the report. An abstract should state the purpose, methods, results, and conclusions of the work effort. For the purpose, include a statement of goals (objectives, aims). For methods, include experimental techniques or the means by which the results were obtained. Results (findings) are the most important part of the abstract and selection should be based on one, or several of the following: new and verified events, findings of permanent value, significant findings which contradict previous theories, or findings which the author knows are relevant to a practical problem. Conclusions should deal with the implications of the findings and how they tie in with studies in related fields. Do not repeat title or other items provided on this page. When a report consists of a number of volumes, include the title of each of the other volumes in each abstract.

Reports presenting the results of computerized model development will use the following structure for the preparation of abstracts:

1. Technical Model description (Nature of the model or simulator)
2. Areas of model application
3. Special model requirements
 - a. Areas of model application
 - b. Other special considerations.
17. Key Words. Select specific and precise terms or short phrases that identify the principal subjects covered in the report. The sponsoring element may specify that key words shall conform to standard terminology, such as that given in the Department of Defense/Engineers Joint Council Thesaurus of Engineering and Scientific Terms, or a Thesaurus of Terms established by the sponsoring element.
18. Distribution Statement. Enter one of the authorized statements (Paragraph 7b(9)) used to denote releasability to the public or a limitation on dissemination for reasons other than security of defense information. Refer questions on the statements to the sponsoring element.
19. Security Classification (of report). Note: Reports carrying a security classification will require additional markings giving security and downgrading information as specified by the sponsoring element.
20. Security Classification (of this page). Note: Because this page may be used in preparing announcements, bibliographies, and data banks, it should be unclassified, if possible. If a classification is required, identify the classified items on the page by an appropriate symbol.
21. No. of Pages. Insert the number of pages having printed material, including front and inside covers.

FIGURE 2B. INSTRUCTIONS FOR COMPLETING TECHNICAL REPORT DOCUMENTATION PAGE.

(2) Preface. Among possible uses, a preface may show the relation of the work reported on to associated efforts, give credit for the use of copyrighted material, and acknowledge significant assistance received.

(3) Metric Conversion Factors. Include a Metric Conversion Factors page (Figure 3) in the report to provide the reader with information for converting to metric measures. Additional units may be included as they apply to the contents of the report. The Metric Conversion Factors page may be obtained from the DOT Warehouse, Publications and Forms, TAD-443.1, or copied from this document. Include page on reverse side of Preface or form.

(4) Table of Contents. In the Table of Contents (not suggested for a report of less than ten pages), list principal headings as they appear in the report with the page numbers on which the headings occur. Do not list items from the front matter. Start the Table of Contents on a right-hand page.

(5). List of Illustrations. Furnish a list of illustrations only if it is considered essential. List figure number, legend, and page number of each illustration. Abbreviate lengthy legends.

(6) List of Tables. Furnish a list of tables only if it is considered essential. List table number, caption, and page number of each table. Abbreviate lengthy captions.

(7) List of Abbreviations and Symbols. Define symbols and abbreviations where first introduced in the text. When symbols and abbreviations are numerous, furnish a separate list with definitions. If list is used, include organization symbols, e.g., IEEE, ANSI, etc.

NOTE: To save space, items (5), (6), and (7) should follow on at the end of the Table of Contents. Do not present each of these on a new page.

e. Body of Report.

(1) General. The contents and organization of the body of a report shall be determined by the nature of the work. However, limit the contents to that information required by the sponsoring organization to inform the reader. Eliminate unnecessary details and appendixes. To reduce primary and secondary reproduction costs and to expedite review, approval, printing and distribution, keep the number of pages to a minimum. Start the first section on a right-hand page. This section usually provides work objectives and background information. Succeeding sections describe work procedures, apparatus involved, tests performed, results achieved, and related matters, as appropriate. The terminal sections usually present conclusions and recommendations. Start new sections or chapters at the top of the next succeeding page, be it left- or right-handed.

(2) Headings. Headings shall stand out from the text with their relative importance apparent.

(3) Numbering System. Number headings and paragraphs only when the numbers are needed for clarity or when extensive cross-references are used.

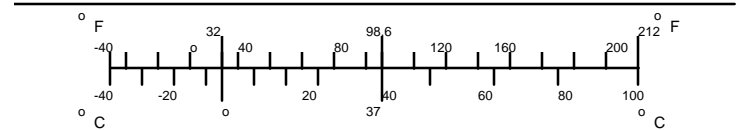
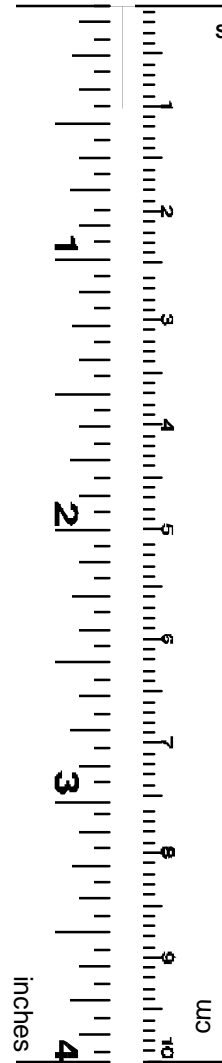
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square in	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286

FIGURE 3. METRIC CONVERSION FACTORS

f. Reference Material.

(1) Appendixes. Start an appendix on a right-hand page. Do not use a separate page to announce an appendix; rather, the -appendix identification should appear at the top of the page with the content starting immediately on the same page. Each appendix shall be cited in the table of contents and from the appropriate position in the body of the report. When more than one appendix is used, designate them Appendix A, Appendix B, etc. When only one appendix is used, no designation is necessary.

(2) Glossary. Define special terms where first introduced in the text. When such terms are numerous, list them as a glossary in alphabetical order.

(3) References, Bibliography, and Footnotes. Include complete identification of references as footnotes on bottom of page where first cited to aid in reading from microform. When references are numerous, they should be included in a reference list in the back of the report. Entries should be presented in a uniform style, with complete identifying data, in accepted bibliographic format. Each entry should include authors, title, sources, identifying numbers, pagination, and dates. Abbreviations are not recommended and should be used sparingly. Refer to Paragraph 3b, REFERENCES.

(4) Index. If an index is included for a lengthy report, make it as complete as the nature of the report and its probable usage requires.

g. Illustrations.

(1) General. Treat illustrations consistently throughout a report. Prepare them so that details and callouts (labels) will be clearly legible after final reproduction. Crop or mask photographs to eliminate insignificant detail. Do not add border frames to outline illustrations or use backdrop tones in line drawings unless they contribute substantially to clarity. For reproducible copy, submit only clean line art and only original photographs (or other types of tone art) rather than screened (halftone) reproductions and indicate smallest size acceptable.

(2) Placement. Locate illustrations near the first text reference made to them except in special situations, such as when a report contains only a few text pages and many illustrations; in such cases, place the illustrations in numerical sequence in the back of the report. It is preferable that illustrations be placed so that they may be viewed without turning the page sideways. If an illustration has to be placed sideways on a page, orient it so that the top of the illustration is at the left side of the page.

(3) Callouts (Labels). So far as practicable, place **callouts** horizontally, unboxed and near the item called out, as shown in Figure 4. Make **callouts** in upper case lettering and consistent in size and typeface throughout a report. Use a typewriter of headliner type size. Strive for high contrast and readability.

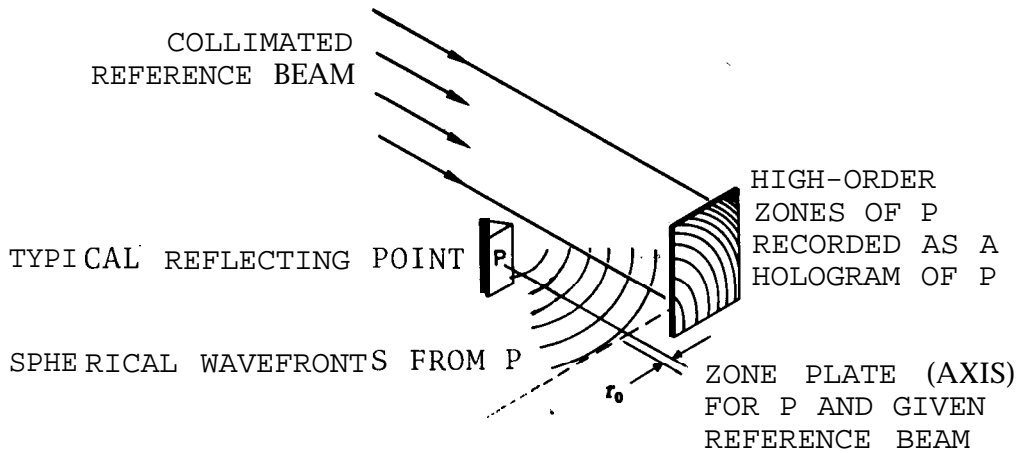


FIGURE 4. SAMPLE PLACEMENT OF CALLOUTS (LABELS).

(4) Color. Color must not be used unless specifically authorized by the sponsoring agency. Often screens, cross-hatching, pattern lines, reverses, dots, or similar techniques can be used as effective substitutes for color (Figure 5). Refer to Government Printing and Binding Regulations for general provisions concerning color printing,

(5) Fold-ins. Wherever possible, avoid the use of oversize illustrations that must be folded. Often most large illustrations can be planned for facing pages. When used, fold-ins should be presented on a right-hand page.

(6) Numbering. Number illustrations to which reference is made in the text consecutively in Arabic numeral, preceded by the word "FIGURE", for example, FIGURE 1, FIGURE 2, or FIGURE 1-1, FIGURE 1-2, FIGURE 2-1, etc. Number illustrations within appendixes in a manner consistent with the appendix letter, such as Figure A-1, Figure B-2, etc. If only one appendix, use Figure A-1, etc.

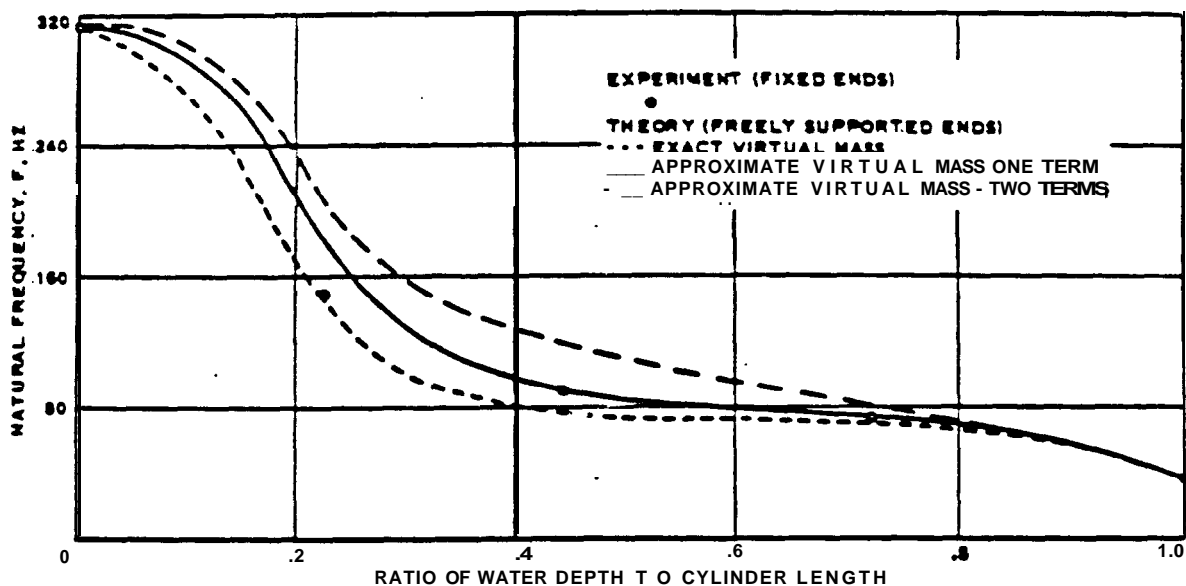
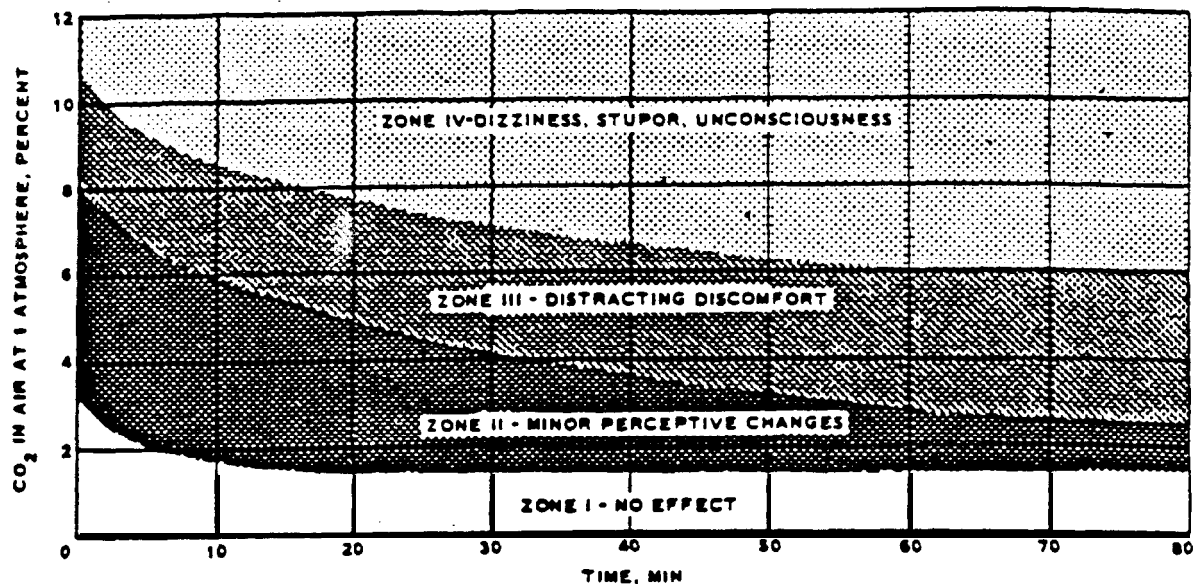


FIGURE 5. SAMPLE SCREENING (TOP) AND CODING (BOTTOM) USED AS SUBSTITUTES FOR COLOR.

(7) Figure Titles. Accompany each illustration, except for self-explanatory sketches, by a descriptive legend. The legend is ordinarily placed under the illustration and follows the figure number. Figure titles should appear as upper case and of the same type style as used for the text.

h. Tables.

(1) General. Tables should be as simple as possible so that the reader can easily grasp the meaning of the data. Use letters and numbers in tables that will be at least 6-point or larger in the final reproduced report, If tables are to be reproduced **directly from** a computer generated printout, the characters on such printout should be sharp and unbroken. A sample table is shown in Figure 6.

TABLE 1. - SHORT-TIME XXXXXXXXXXXXXXXXXXXXXXXX ← Caption

Boxhead

Temperature, K	Specimen type (a)	Ultimate tensile strength. N/m ²	Elongation between buttonheads, cm	Reduction of area, percent
Footnote reference ↙		Tungsten		
1700	1	2200 × 10 ³	1.57	95
1900	1	1312	1.60	75
2060	1	967	.69	36
2260	1	674	.51	25

^aRecrystallized at 2370 K for 1/2 hour in vacuum. ← Footnote

FIGURE 6. SAMPLE TYPICAL TABLE LAYOUT. For more complete information on tables, see the Government Printing Office Style Manual.

(2) Placement. Locate tables near the first text reference made to them, except in special situations such as when a report contains only a few text pages and many tables. In such cases , place the tables in numerical sequence in the back of the report. It is preferable that tables be placed so that they may be viewed without turning the page sideways. If a table has to be located sideways on a page, orient it so that the top of the table is at the left side of the page.

(3) Headings and Columns. Give repetitive unit of measure or degree in the column headings of tables. (Example %; \$; 0 F.) Do not repeat in the columns. When tables continue on two or more pages, note the continuation and repeat the table and column headings and rulings on each page.

(4) Numbering. Number tables to which reference is made in the text consecutively in Arabic numerals, preceded by the word "TABLE", for example, TABLE 1, TABLE 2, or TABLE 1-1, TABLE 1-2, TABLE 2-1, etc. Number tables within appendixes in a manner consistent with the Appendix letter, such as "TABLE A-1, TABLE B-2," etc.

(5) Captions. Give each table, except short ones which run in with the text, a descriptive caption following the table number. Place caption above the table.

i. Equations.

(1) General. Prepare mathematical matter with extreme care. Use machine or transfer-type composition when available. Identify symbols after first use to aid in reading from microform or in a separate list. Make opening and closing parentheses, brackets, and braces the same height as the tallest expression they enclose. Separate numerator from the denominator with a line as long as the longer of the two. Center both numerator and denominator on the line.

(2) Placement. Indent or center a displayed equation in the line immediately following the first text reference made to it. Break equations before an equal, plus, or multiplication sign. Align a group of separate but related equations by the equal signs and indent or center the group as a whole. Short equations not part of a series may be placed in the text rather than displayed.

(3) Numbering. Number equations which are part of a series or which are referred to in the text consecutively in Arabic numerals; for example, (1), (2), or (1-1), (1-2), (2-1), etc. Enclose each number in parentheses at the right margin on the last line of the equation numbers. Number equations within appendixes in a manner consistent with the appendix letter, such as (A-1), (B-2), etc.

j. Distribution List. Do not include a distribution list in a DOT report.

8. PRODUCTION

a. Composition

(1) Type Size. Use a minimum 8-point type size or typewriter for the main text of the report.

(2) Final Camera-Ready Copy. For maximum page coverage, do not use block paragraphs. Rather, return all succeeding lines to the left margin.

Unless a report is classified, do not use: "This page left blank intentionally." This increases the number of pages to be printed and increases the cost and time required to make pages ready for printing, i.e., sizing pages, making plates or negatives, etc. Note blank pages to the printing specialist by circle folio, or number pages, for example 7/8, which instructs the printer and reader that page 8 is blank. Do not include two and three line pages, noting, "Chapter and Title" only or "Appendix and Title" only. Place this information at top of page containing the start of text. This eliminates the cost and time to make pages ready for printing.

(3) Line Spacing. Use a single or 1 1/2 spacing for reports prepared by typewriter for reproduction, except when extra spacing between lines is necessary to assure clarity of run-in equations, symbols, etc.

(4) Margins. Use margins of no more than 1 inch on all sides of text pages.

(5) Page Numbering. Wherever practicable, number all pages throughout a report consecutively at the bottom center. Number preliminary pages, containing the Technical Report Documentation Page, Preface, Metric Conversion Factors, Table of Contents, etc., in lower case Roman numerals: I, ii, iii, etc. Number pages containing main text and illustrations in Arabic numerals: 1, 2, 3, etc. In special cases, pages may be numbered by section or chapter: 1-1, 1-2; 2-1, 2-2, etc. Number appendixes in alphanumerics: A-1, A-2; B-1, B-2, etc. Odd numbered pages are right-hand pages and even-numbered pages are left-hand pages.

b. Limitation on Printing. Contractors shall furnish a reproducible copy on one side only of the final approved report within the time specified in the contract. Only clean tone or line art and original photographs and text suitable for camera-ready copy for offset printing shall be submitted. Contractors shall not become prime sources of printing for agencies unless so authorized by the Joint Committee on Printing. Refer to the Government Printing and Binding Regulations. Both duplicating and printing must conform to these regulations. Printing shall not be a preplanned contractual requirement.

c. Workmanship. Reports published under this document are microreproduced. Filled-in or broken letters, illegible text or illustrations (including lettering), or similar imperfections are not acceptable. Copies of computerized printout material made on electrostatic photo copy machines are generally of poor quality for further reproduction. Original printouts or photographic reproductions using high contrast file processing techniques are generally acceptable.

d. Self Cover Size, Stock, and Ink. Whenever possible, reports shall be printed with self covers (of the same weight paper as the text) cut to page size, using black ink. Covers with windows or plastic covering over self covers shall not be used.

e. Page Size, Stock, and Ink. Reports shall be printed using paper approximately 8 by 10 1/2 inches or 8 1/2 by 11 inches in size. Use black ink on opaque white paper. Both sides of the sheet shall be used to the maximum extent practicable. Different colored paper in reports sections shall not be used.

f. Binding. Side-stitching, saddle-stitching or glue-back binding shall be requested. Other types of binding require specific approval of the sponsoring administration.

g. Decorative Features and Advertising. Advertising display on pages shall not be used.

9. REVIEW, ACCEPTANCE AND DISTRIBUTION.

a. Review and Acceptance. To ensure that DOT technical reports conform to the established standards of format and distribution and to protect the Government interest against possible litigation, all reports shall be reviewed and accepted as follows;

(1) Review. After completion of the technical work related to a contract, grant, or project phase, the performing organization shall submit advance draft copies of the report with a letter of transmittal to the concerned element of the DOT sponsoring administration for review and approval in accordance with the appropriate work agreement. Such review is for the purpose of assuring that the report is of high professional quality and in compliance with the project assignment and with the guidelines established by this document.

(2) Acceptance. A critique of reports prepared by DOT elements will be provided performing organizations in writing by the DOT sponsoring administration concerned, within 60 days of receipt of draft copies. For contractor prepared reports, approval will be provided in writing by the contracting officer or his designated representative.

(3) Waiver of Approval Authority. In cases where the sponsoring organization waives its review and approval authority, such waiver shall be specified in the agreement documentation.

b. Unlimited Distribution. The following distribution will be included for scientific and technical reports sponsored by DOT administrations for unlimited distribution. Each report will contain a completed Documentation Page (DOT F 1700-7) and be accompanied by one NTIS Accession Notice Card* (Form NTIS-79) when forwarded directly to NTIS. Item 3 on the NTIS Accession Notice Card must contain at least the following information: complete title of the report, date of the report (month and year), author(s), and the organization's report number. These cards will be returned to the addressees, bearing the NTIS order (accession) number and price data. Blank cards are available from NTIS.

(1) TRISNET Repositories and number of copies to each.

*National Technical Information Service 12
DOT Input Section
Springfield, Virginia 22161

NOTE: Federal Aviation Administration
and U. S. Coast Guard may continue their
current practices of providing these reports
via the Defense Documentation Center (DDC)

DOT Headquarters Library 6
Services Division, TAD-491

Transportation Systems Center, TSC-151 3
Kendall Square
Cambridge, Massachusetts 02142

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University of California 3
TRISNET Repository
Institute of Transportation and Traffic Engineering
Berkley, California 94720

(2) TRISNET Abstracting and Indexing; one copy of topically-relevant reports is distributed to each address.

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Washington, DC 20418

Railroad Research Information Service
Washington, DC 20418

Maritime Research Information Service
Washington, DC 20418

Transportation Tunneling Information Center
2595 Yeager Road
West Lafayette, Indiana 46906

c. Limited Distribution. The following distribution will be included for scientific and technical reports sponsored by DOT administrations, which have limited distribution.

Office of the Secretary, TST-25.1 - 1 copy

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314 - 12 copies

d. General. Keep a limited number of copies (as determined to be necessary for internal DOT use) in the Warehouse (TAD-443.1). The documents so deposited should not remain on shelf for more than two years from the date of the report.

Technical Report Documentation Page

1. Report No.		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle				5. Report Date	
				6. Performing Organization Code	
				8. Performing Organization Report No.	
7. Author (s)					
9. Performing Organization Name and Address				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No.	
				13. Type of Report and Period Covered	
12. Sponsoring Agency Name and Address					
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract					
17. Key Words			18. Distribution Statement		
19. Security Classif. (of this report)		20. Security Calssif. (of this page)		21. No. of Pages	
				22. Price	

Attachment J-3

Exhibit A

Client Authorization Letter

[Company Name]
[Street Address]
[City, State/Province]
[Zip/Postal Code]
[Date]

[Recipient Name]
[Address]
[City, State/Province Zip/Postal Code]

Dear [Client]:

We are currently responding to the Volpe Center RFP No. _____ for the procurement of _____. The Volpe Center is placing increased emphasis in their acquisitions on past performance as a source selection evaluation factor. The Volpe Center requires Offerors to inform references identified in proposals that the Volpe Center may contact them about contract performance information.

If you are contacted by the Volpe Center for information on work we have performed under contract for your company/agency/state or local Government, you are hereby authorized to respond to Volpe Center inquiries.

Your cooperation is appreciated. Please direct any questions to _____.
(Offeror's point of contact)

Sincerely,
[Your name]
[Your position]

[Typist's initials]
Enclosure: [Number]

cc: [Name]

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER
SOURCE SELECTION INFORMATION -- SEE FAR 3.104

CONTRACTOR PERFORMANCE REPORT

☐ Final ☐ Interim - Period Report: From: To:

1. Contractor Name and Address: (Identify Division)	<table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 5%; vertical-align: top; padding: 5px;">2.</td><td style="padding: 5px;">Contract Number _____</td></tr><tr><td style="vertical-align: top; padding: 5px;">3.</td><td style="padding: 5px;">Contract Value: \$ _____ (Base Plus Options)</td></tr><tr><td style="vertical-align: top; padding: 5px;">4.</td><td style="padding: 5px;">Contract Award Date: _____</td></tr><tr><td style="vertical-align: top; padding: 5px;">5.</td><td style="padding: 5px;">Contract Completion Date: _____</td></tr></table>	2.	Contract Number _____	3.	Contract Value: \$ _____ (Base Plus Options)	4.	Contract Award Date: _____	5.	Contract Completion Date: _____
2.	Contract Number _____								
3.	Contract Value: \$ _____ (Base Plus Options)								
4.	Contract Award Date: _____								
5.	Contract Completion Date: _____								

6. Type of Contract: (Check all that apply) - ☐ FP ☐ FPI ☐ FP-EPA ☐ CPFF - Completion ☐ CPFF - Term
☐ CPIF ☐ CPAF ☐ ID/IQ ☐ BOA ☐ Requirements ☐ Labor Hour ☐ T & M ☐ SBSA ☐ 8(a) ☐ SBIR
☐ Sealed Bid ☐ Negotiated ☐ Competitive ☐ Non-Competitive

7. Description of Requirement:

8. Initial Ratings. (See Block 15 for Final Rating) Summarize contractor performance and circle in the column on the right the number which corresponds to the performance rating for each rating category. Attach additional comments as necessary.

a. Quality of Product/Service	Comments:	0 1 2 3 4
b. Cost Control	Comments:	0 1 2 3 4
c. Timeliness of Performance	Comments:	0 1 2 3 4
d. Business Relations	Comments:	0 1 2 3 4
e. Overall Satisfaction Rating	Comments:	0 1 2 3 4

SOURCE SELECTION INFORMATION -- SEE FAR 3.104

CONTRACTOR PERFORMANCE REPORT INSTRUCTIONS

The Acquisition Division is responsible for the coordination and collection of Contractor Performance Reports. The Contracting Officer (CO) or Administrative Contracting Officer (ACO) will determine whether the report will be completed on a contractor task basis, and will coordinate completion of the attached report form with either the Contracting Officer's Technical Representative (COTR) or Technical Monitor delegated day-to-day responsibility for administration of the identified contractor or task order. This individual should consult with the CO/ACO where necessary to arrive at a consensus on the ratings to be awarded.

Section 42.1503 of the FAR requires that copies of these forms will be provided to the contractor, which must have an opportunity to respond and add comments to agency evaluations, as described below. The Acquisition Division will perform this coordination function. Furthermore, the FAR requires that past performance evaluations be marked and treated as Source Selection Information and release of this information is prohibited except to Government personnel and the contractor whose performance is being evaluated. For these reasons, all outside inquiries concerning contractor past performance should be directed to the ACO, who will have access to the completed forms. Also, completed forms should be returned to the attention of the ACO/CO in a sealed envelope marked "Source Selection Information".

COMPLETING THE FORM

Blocks 1 through 11 will be completed by the COTR or Technical Monitor, as applicable. Contact the ACO/CO if you require assistance or data in order to complete any of these blocks, especially blocks 1 through 6.

The Acquisition Division will be responsible for forwarding the completed form to the contractor for review and execution of blocks 12 and 13. The Acquisition Division will ensure blocks 14 through 16 are completed prior to filing in a secured location.

To Be Completed by COTR/Technical Monitor

Top of Form: Indicate whether the report is a final or interim (annual) report, and give the dates for the period of time being covered. Prior to the ending date of the contract, all reports should be marked "interim".

Block 1: identify the name and address of the prime contractor.

Block 2: Identify contract number of the contract being evaluated. If evaluation is being conducted for a specific task, include the task number.

Block 3: Contract value or task value, as applicable. Include all options whether or not exercised to date.

Block 4: Identify date that contract was awarded or task issued.

Block 5: Identify completion date for contract or task, as applicable.

Block 6: All items that apply to the contractor task should be checked.

Block 7: Provide a clear and concise description of the work being done under the contract or task and the current level of funding. Attach additional sheet(s), if needed, to ensure the description is adequate for future source selection officials to determine relevance.

SOURCE SELECTION INFORMATION -- SEE FAR 3.104

9. Key Personnel: (Fill in as appropriate)

Name/Title: _____

Period of Performance: _____

Comments: _____

Name/Title: _____

Period of Performance: _____

Comments: _____

Name/Title: _____

Period of Performance: _____

Comments: _____

Name/Title: _____

Period of Performance: _____

Comments: _____

10. Would you recommend this firm for award? Please explain.

11. COTR/Program Manager/Tech Monitor Name (Printed): _____

Signature _____

Phone/FAX/Internet Address _____

Date _____

12. Contractor's Review. Were comments, rebuttals, or additional information provided? [] No [] Yes
Please attach comments. Number of pages: _____

13. Reviewer's Name (Printed): _____

Signature _____

Phone/FAX/Internet Address _____

Date _____

14. Agency Review. Were contractor comments reviewed at a level above the Contracting Officer? [] No [] Yes
Please attach comments. Number of pages: _____

15. Final Ratings. Re-assess the Block 8 ratings based on contractor comments and agency review. Revise block 8 rating, if appropriate.

				Customer Satisfaction
Quality _____	Cost _____	Timeliness _____	Business Relations _____	
16. Contracting Officer's Name (Printed): _____	Signature _____			
Phone/FAX/Internet Address _____	Date _____			

SOURCE SELECTION INFORMATION -- SEE FAR 3.104

Block 8 RATING DEFINITIONS

0 - Unsatisfactory. - Performance failed to satisfy the minimum contract or task requirements, technical or otherwise. Areas of deficiency could include, but are not limited to: failure to meet schedules; failure to adequately estimate or control costs; inadequate staffing; lack of cooperation and responsiveness.

1 - Minimally Acceptable. Performance generally met minimum contract or task requirements but significant issues arose which required expenditure of time or resources by the Government to ensure the requirements were met. Areas of re-work could include; late or incomplete deliverables; poor quality of work; lack of communication; cost control problems; contract administration problems.

2 - Satisfactory. Met all technical and administrative contract or task requirements. Minor issues arose which were resolved with minimal expenditure of time or resources.

3 - Good. Met all contract or task requirements and exceeded minimal requirements in some areas. No problems with quality, timeliness, or cost issues. Management was responsive.

4 - Exceptional. Performance significantly exceeded minimal technical requirements and met all other contract requirements. Areas in which performance was exceptional could include: early deliveries; creative approach; innovative technology; effective and proactive management and administration; commitment to customer satisfaction.

Block 8 - COMMENT ELEMENTS BY CATEGORY

(a) Quality of product/service

- (1) Compliance with contract or task requirements;
- (2) Accuracy of reports;
- (3) Appropriateness of contractor personnel assigned to the contract or task; and
- (4) Technical excellence or delivered supplies or services.

(b) Cost Control

- (1) Current, accurate, and complete billings;
- (2) The relationship of negotiated cost to actuals;
- (3) Cost containment initiatives; and
- (4) The number and cause of change orders issued.

(c) Timeliness of Performance

- (1) Whether the contractor met interim milestone;
- (2) Contractor's responsiveness to technical direction;
- (3) Contractor's responsiveness to contract change orders and administrative requirements;
- (4) Whether the contract/task was completed on time, including wrap-up and contract administration.

(d) Business Relations

- (1) Whether the contractor effectively managed the contract/task effort;
- (2) How responsive the contractor was to contract requirements;
- (3) How promptly the contractor notified the Government of problems;
- (4) Whether the contractor was reasonable and cooperative;
- (5) How flexible the contractor was;
- (6) Whether the contractor was proactive;
- (7) The effectiveness of contractor-recommended solutions; and
- (8) Whether the contractor effectively implemented socioeconomic problems.

- Block 8:** Circle the rating in the far right column that best describes the contractor's overall performance for each category. Comments and/or examples in sufficient detail to support the ratings must be provided. Attach additional comment sheets if needed. Definitions for each rating and a description of elements to consider when commenting on each category can be found at the end of these instructions.
- Block 9:** Identify the individual(s) primarily responsible for performance of the contract/task, not necessarily the persons identified as "Key Personnel" in the contractual document. Indicate how long each individual worked on the contract/task. If there were many individuals involved or many changes in these managers a second page may be necessary. On the comments line, describe the key person's performance attaching additional sheets when necessary.
- Block 10:** Explain why, given a choice, you would or would not recommend the contractor for an award to perform a similar contractor task.
- Block 11:** The COTR or Technical Monitor delegated responsibility for the day to day administration of the contract or task should sign this block, after consulting with the CO/ACO, where appropriate.

To Be Completed by Contractor

- Block 12:** Block 12 must be completed to indicate that the contractor has been given the opportunity to review the evaluation:

The contractor will be provided with a copy of the completed evaluation from (including initial ratings) and attachments. The contractor has the right to submit to the CO comments, rebutting statements, or additional information which specifically addresses elements of the review. This response must be structured to clearly identify the specific category being addressed. This response must be delivered to the CO no later than 30 days after the mailing date of the evaluation form. In the event no response is received the contractor will be deemed to have accepted the evaluation form as written.

- Block 13:** The contractor should sign this block to indicate that it has had an opportunity to review and comment upon the ratings.

To be Completed by CO/ACO

- Block 14:** If the contractor accepts the ratings, they will be entered as Final Ratings in Block 15, no Agency Review is required, and the Contracting Officer's signature in Block 16 completes the process.

If the contractor objects to the initial ratings a review will be undertaken by the CO, in consultation with the technical staff. If the CO does not concur in a modification, the matter will be reviewed at a level above the CO within the Acquisition Division and a Final Rating determined by the Reviewing Official's Report, which will be attached to the Performance Report.

- Block 15:** If the initial ratings have been modified by either the CO or after Agency Review, insert the revised Final Ratings. If there has been no change to the initial ratings, insert the initial ratings.
- Block 16:** If agreement is reached on the ratings without an Agency Review, the CO will sign. If an Agency Review is carried out, the block must be signed by the Reviewing Official.

CONTRACT PRICING SUMMARY (For New Contracts Including Letter Contracts) (See Instructions on Reverse)					PAGE OF PAGES	
This form is for use in support of Standard Form 1411 prescribed by GSA, FAR (48 CFR) 53.215-2(c), Format 7A					OMB Control No. 2105-0517 Expiration Date: 4/30/97	
Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, D.C. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (2105-0517), Washington, D.C. 20503.						
NAME OF OFFEROR				SUPPLIES AND/OR SERVICES TO BE FURNISHED		
HOME OFFICE ADDRESS						
DIVISION(S) AND LOCATIONS(S) WHERE WORK IS TO BE PERFORMED				GOVT SOLICITATION NO.		
DETAIL DESCRIPTION OF COST ELEMENTS						
1. DIRECT MATERIAL				EST COST (\$)	TOTAL EST COST	REFER-ENCE
A. PURCHASED PARTS						
B. SUBCONTRACTED ITEMS						
C. OTHER -- (1) RAW MATERIAL						
(2) STANDARD COMMERCIAL ITEMS						
TOTAL DIRECT MATERIAL						
2. MATERIAL OVERHEAD (Rate % X \$ base =)						
3. DIRECT LABOR			ESTIMATED HOURS	RATE/HOUR	EST COST (\$)	
TOTAL DIRECT LABOR						
4. LABOR OVERHEAD			O.H. RATE	X BASE =	EST COST (\$)	
TOTAL LABOR OVERHEAD						
5. OTHER DIRECT COSTS				EST COST (\$)		
A. SPECIAL TOOLING/EQUIPMENT						
TOTAL SPECIAL TOOLING/EQUIPMENT						
B. TRAVEL				EST COST (\$)		
(1) TRANSPORTATION						
(2) PER DIEM OR SUBSISTENCE						
TOTAL TRAVEL						
C. INDIVIDUAL CONSULTANT SERVICES				EST COST (\$)		
TOTAL INDIVIDUAL CONSULTANT SERVICES						
D. OTHER				EST COST (\$)		
TOTAL OTHER						
SUBTOTAL DIRECT COST AND OVERHEAD						
6. GENERAL AND ADMINISTRATIVE (G&A) EXPENSE (RATE % x \$ BASE (I.E., COST ELEMENT NOS.) =						
7. ROYALTIES						
8 SUBTOTAL ESTIMATED COST						
9. CONTRACT FACILITIES CAPITAL AND COST OF MONEY						
10 SUBTOTAL ESTIMATED COST						
11. FEE OR PROFIT						
12 TOTAL ESTIMATED COST AND FEE OR PROFIT						

INSTRUCTIONS FOR COMPLETING CONTRACT PRICING SUMMARY

Offerors are instructed to prepare their cost proposals in sufficient detail to permit thorough and complete evaluation by the Government. A separate DOT F 4220.44 is required for the basic and each option period (if applicable). The supporting data for the DOT F 4220.44 shall be as follows. (NOTE: The DOT F 4220.44 shall be used to implement the requirements of the SF 1411 and does not relieve offerors from complying with FAR 15.804-6 requirements.)

(a) The basis for all proposed rates (including a copy of the indirect cost pool and a computational trail used to arrive at the proposed rate shall be clearly identified when the proposed rates are not approved by a Government audit agency for use in proposals; or approved by the Government audit agency, but the approval is 12 months or more old. State rather an approved (within 12 months) Government audit agency rate was used.

(b) The information below clarifies FAR 15.804-6 requirements for specific cost elements. The cost elements listed below shall be supported, as a minimum, with the following:

1. DIRECT MATERIAL.

A. Purchased Parts: Provide a consolidated priced summary of individual material quantities included in the various tasks, orders, or contract line items being proposed and the basis for pricing (vendor quotes, invoices prices, etc.). Give details on an attached schedule.

B. Subcontracted Items: Show the total cost of subcontract effort and provide a separate SF 1411 and supporting DOT F 4220.44 for each subcontractor or written quotations from the prospective subcontractor in accordance with FAR 15.806-2.

C. Other.

(1) Raw Material: Consists of material in a form or state that requires further processing. Provide priced quantities of items required for the proposal. Show total cost and give details on an attached schedule.

(2) Standard Commercial Items: Consists of items that the offeror normally fabricates, in whole or in part, and that are generally stocked in inventory. Provide an appropriate explanation of the basis for pricing. If price is based on cost, provide a cost breakdown; if priced at other than cost, provide justification for exemption from submission of cost or pricing data, as required by FAR 15.804-3(e). Show total cost and give details on an attached schedule.

2. MATERIAL OVERHEAD.

Show cost here only if your accounting system provides for such cost segregation and only if this cost is not computed as part of labor overhead (item 4) or General and Administrative (G&A) (item 6).

3. DIRECT LABOR.

Show the hourly rate and the total hours for each individual (if known) and discipline of direct labor proposed. Indicate whether actual rates or escalated rates are used. If escalation is included, state the degree (percent) and rationale used.

4. LABOR OVERHEAD.

See paragraph (a) above.

5. OTHER DIRECT COSTS

(A) Special Tooling/Equipment. Identify and support specific equipment and unit prices. Use a separate schedule if necessary.

(B) Travel. Identify and support each trip proposed and the persons (or disciplines) designated to make each trip. Identify and support transportation and per diem rates.

(C) Individual Consultant Services. Identify and support the proposed contemplated consultants. State the amount of service estimated to be required and the consultant's quoted daily or hourly rate.

(D) Other Costs. List all other direct charge costs not otherwise included in the categories described above (e.g., services of specialized trades, computer services, preservation, packaging and packing, leasing of equipment) and provide bases for pricing.

6. GENERAL AND ADMINISTRATIVE EXPENSE.

See paragraph (a) above and base approved by a Government audit agency for use in proposals.

7. ROYALTIES.

If more than \$250, provide the following information on a separate page for each separate royalty or license fee; name and address of licensor; date of license agreement; patent numbers, patent application serial numbers, or other basis on which the royalty is payable; brief description (including any part of model numbers of each contract item or component on which the royalty is payable); percentage or dollar rate of royalty per unit; unit price of contract item; number of units; and total dollar amount of royalties. In addition, if specifically requested by the Contracting Officer, provide a copy of the current license agreement and identification of applicable claims of specific patents. (See FAR 27.204 and 31.205-37)

8. SUBTOTAL ESTIMATED COST.

Enter the total of all direct and indirect costs excluding Contract Facilities Capital and Cost of Money and Fee or Profit.

9. CONTRACT FACILITIES CAPITAL AND COST OF MONEY.

Show total cost on line 9 and attach supporting calculations on the CASB-CMF forms. (See FAR 31.205-10).

10. SUBTOTAL ESTIMATED COST

Enter the total of all proposed costs excluding Fee or Profit and insert this amount in Section 6.A. of SF 1411.

11. FEE OR PROFIT.

Enter this proposed Fee or Profit and insert this amount in Section 6.B. of SF 1411.

12. TOTAL ESTIMATED COST AND FEE OR PROFIT.

Enter the total estimated cost including Fee or Profit.

(c) Under the column entitled, "Reference," identify the attachment where information supporting the specific cost element may be found.

ATTACHMENT J-5
HYPOTHETICAL TASK

MODELING REQUIREMENTS FOR TRACK DEGRADATION RATES PREDICTIONS

L.1. Objectives

The objective of this Hypothetical Task is to develop analyses to predict degradation rates for three specific rail/track failure mechanisms, namely gage widening (rail restraint failure), rail creep (longitudinal restraint failure), and track vertical settlement. The intent is to develop the predictive tools which appropriately account for the governing parameters, and which correctly model the respective mechanistic behavior attributed to the specific degradation process.

L.2. Background

Recent investigations addressing the development of appropriate guidelines for the inspection and maintenance of railroad tracks sustaining heavy freight traffic, identified the need to establish degradation limits for each potential derailment scenario. A different scenario can be postulated for each track type and service condition related to a particular failure mechanism. Each failure mechanism has at least one measurable parameter that relates to the safety of the track with respect to that failure mechanism. The safety of a track against buckling, as an example, can be quantified employing the known longitudinal force at a particular rail temperature if alignment defects and lateral resistances throughout the track segment are also known. The mechanics that determine failure occurrence for other mechanisms are not as well understood. Track geometry irregularities that can lead to derailment are caused by differential movement of the rails due to a combination of loading and environmental conditions. Although the interaction between wheel and rail that leads to derailment can be modeled; the mechanisms that degrade the track geometry are not as well quantified.

To determine the safety of a particular piece of track, at any point in time, the condition of the track must be determined in terms of parameters that measure every possible failure mechanism. To be useful as safety guidelines, it is necessary to project the rate at which the track will degrade to some limit that marks the track as unacceptable for further use at that level of service. In a risk-based inspection and maintenance system, these degradation rates would be used in combination with mechanistic models of performance to establish inspection rates as well as condemning limits.

It is the intent of this TO is to provide for the modeling capability for the prediction of degradation rates associated with gage widening, rail creep, and track vertical settlement to be an integral part of an overall risk analysis package used for the development of risk based strategies for inspection and maintenance.

L.3. Task Description

Task 1

Conduct an assessment of existing analytic and experimental methods for the determination of rail lateral/torsional/longitudinal displacement, and track vertical displacement behavior due to dynamic and thermal loads. Of particular interest is the need to account for multiple load pass/hysteresis effects causing "permanent set" type deformations and the environmental effects that lead to significant changes in track degradation rates. Consideration must also be given to the proper inclusion of the dynamic effects, and all the relevant track and vehicle parameters.

Task 2

In view of the assessment studies of Task 1 above, develop a plan addressing the development of the three models for the prediction of gage widening, rail longitudinal creep, and track vertical settlement. The plan shall define the development methodology for the respective models, clearly delineating the mechanistic approach, the governing loading mechanisms, key parameters, the specifics of "cumulative damage" predictions, and quantification of uncertainties for risk analyses. The plan shall also provide a schedule, labor/resource requirements, and a cost estimate.

Task 3

Develop requirements for tests/field experiments for the determination of the required input parameters to the respective models (if not available to date). The requirements shall identify the specific tests/techniques for the measurement of the respective parameters.

Task 4

Document the results of Items 1 - 3 in a comprehensive technical report to be submitted to the VNTSC within eight (8) months of TO's effective date.